BLACKBURN CREEKLANDS

MASTER PLAN

September 2002

CITY OF WHITEHORSE

OVERVIEW

Information from a range of sources has been compiled for the Blackburn Creeklands to build a picture of the park and of its past and present management.

This background information acknowledges the community's close association with the Creeklands, the value that the community places on each of the three parks in the chain, the efforts of the Blackburn Creeklands Advisory Committee and improvements undertaken by Council.

Relevant strategies and policy documents provide a City-wide and regional context for the Master Plan. In addition, a study of flora, fauna and habitat by Practical Ecology Pty Ltd was commissioned specifically for the Master Plan (refer Appendix A) and is a major component of the Plan. The recent study of Gardiners Creek by Ove Arup for Melbourne Water is also highly relevant to the future directions for the Creeklands.

The site analysis considers the separate components that make up the Creeklands. It provides a detailed description of existing conditions for each component across the whole park and from this, key issues and opportunities for improvement are highlighted. Broadly, the site analysis covers the following:

Environmental elements
- Vegetation, fauna and habitat
- The creek
- Visual attributes, such as terrain and landscape character

The park user
- Park facilities, particularly access trails, entrance treatments, fencing and car parking, as well as playgrounds, lighting and seats.
- Activities, visitor needs, park interpretation and community education
- Heritage interests

Property management
- Leases, tenant groups, adjoining land and other general property matters.

The objectives of the Master Plan are intended to reflect those matters that are important to the community, Council and other key stakeholders. These objectives underpin the recommendations that are set out in the Master Plan.

Recommended actions in the Master Plan are drawn directly from the identified opportunities and have been grouped on a park by park basis to enable the recommendations to be read in conjunction with the Master Plan drawings. Some recommendations, however, are not specific to a particular park and these are listed as General Matters.

The recommendations are prioritised. High priority actions should generally be tackled first, but it is recognized that some of these may require a substantial timeframe to achieve. Equally, it may be appropriate for some lower priority actions to be implemented ahead of higher priority actions if favourable circumstances arise or if they are relatively easy to complete. High priority actions include:

General Matters – These apply to each park
- Retaining and enhancing vistas along creekside trails
- Weed control and revegetation strategies
- Continued support for Advisory Committee activities – working bees, park monitoring, fostering local community involvement and the relationship with Council
- Sensitive tree management. Succession planting for future tree canopy and habitat
- Management of better quality indigenous vegetation communities
- Applying information on past vegetation communities in revegetation
- Coordination of revegetation activities with Melbourne Water creek restoration works

- Management of various habitats, particularly trees and their hollows, degraded bushland, habitat links, wetlands and creek environs
- Retention of mature trees on neighbouring property via implementation and enforcement of planning controls
- Improving communication with and liaising with Melbourne Water on creek related issues – future maintenance, weed control, erosion, and vegetation and trail protection
- Retaining unsealed trail surface - ensure a consistently good standard of trail that is functional, comfortable to use, safe and has appropriate, but minimal, advisory signage. Review of maintenance, drainage and site specific hazards along trails
- Reviewing park entrance designs
- Protecting and enhancing locally significant features
- Selective retention of significant exotic trees
- Fire hazard control
- Monitor and manage the impact of possums on the condition of trees
- Communication with adjoining residents. Encourage use of indigenous plants and weed control on adjoining properties.

Blacks Walk

- Retaining views of grasslands
- Redesigning the steep trail below Salisbury Avenue properties
- Site specific vegetation recommendations relating to weed control, species diversification and expansion of good quality bushland, reintroduction of indigenous groundstorey and woody weed removal along the creekside habitats.
- Rehabilitation of Blackburn Creek (excluded from Melbourne Water recommendations)
- Addressing path drainage around the Blackburn Creek culvert and north of the footbridge
- Provide directional signs to Gardiners Creek trail (west) and to the park from local streets
- Redesign Pakenham Street car park; upgrade presentation of the Garie Street car park.

Kalang Park

- Site specific vegetation recommendations including expansion of good quality bushland, weed control, creation of wetlands below Myrtle Grove and Malcolm Street to improve habitat and manage local stormwater runoff, removal of woody weeds and reducing the number of tracks in the woodland east of Laurel Grove.
- Consideration of trail realignment as part of the Malcolm Street wetland design
- Where possible, landscaping along narrow stretches of parkland to enhance the interface between the trail, creek and property boundaries
- Address path drainage at specific points along the north side of the creek
- Replace the solar lights with either mains power or an offset solar panel
- Delineation and management of Melbourne Water land in Kalang Park.

Furness Park

- Site specific vegetation recommendations including revegetation of the creekside corridor, weed control, removal of woody weeds and indigenous understorey around mature trees to promote tree health
- Protect the park's characteristic landscape elements such as the mature eucalypts
- Create a system of terraces to manage stormwater below Gardenia Street
- Complete an internal circuit in the eastern half of the park
- Improve the Furness Street entrance
- Remove the Heath Street / Blackburn Road Willow and reconsider trail alignments around the revegetation site which is well established
- Provide a safer crossing at Main Street. Install pedestrian warning signs for motorists on the Main Street and Blackburn Road approaches to the park
- Provide directional signs to Blackburn Lake Sanctuary and to the park from local streets
- Close the eastern part of the unconstructed road along the north boundary below Gardenia Street, maintaining access where required and bollarding the boundary of the remaining road reserve.

Some recommendations will be achieved through maintenance programs under Council's recurrent budget. Other projects will be funded as part of the capital budget and may require further consultation with the community.

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1. INTRODUCTION

The Blackburn Creeklands flank Gardiners Creek and extend from Blackburn Road to Middleborough Road in Blackburn. Refer to the Locality Map which follows. The Creeklands cover an area of approximately 19 hectares and encompass three parks:

- Blacks Walk – Middleborough Road to Pakenham Street 6.5 ha
- Kalang Park – Pakenham Street to Main Street 9.1 ha
- Furness Park – Main Street to Blackburn Road 3.4 ha

The Blackburn Creeklands are recognised as: "***An important linear parkland with strong environmental and neighbourhood character values providing great opportunities for informal and passive recreation".*** Parks Master Planning Process Vision, April 1999.

The creek, surrounding bushland, open parkland, sporting and community facilities, trails and play areas combine to form an important resource for recreational and nature based activities, valuable habitat for fauna and a strategic connection in the Gardiners Creek lineal park network. Gardiners Creek itself performs an important drainage function for stormwater from the surrounding urban catchment.

Improvements at the Creeklands have included:

- The trail network of 3.8 km, including two bridges.
- Sporting facilities at Kalang Oval and the adjacent lawn bowls club.
- Bushland management involving revegetation, regeneration, weed control and community assistance with a number of projects.
- Support facilities such as car parking, seats, some interpretive information, lights, bollards and fencing.
- Ongoing parkland maintenance such as grass cutting, tree management, fire protection works and upkeep of assets such as fencing, bollards, playgrounds, lights, seats and trails.
- Community facilities, such as the guide and scout halls.
- Playgrounds at Garie, Harry / Kalang and Heath Streets; one in each of the three parks.
- Infrastructure relating to the drainage functions of the creek, including rock and concrete lining of the creek by the former Melbourne and Metropolitan Board of Works and recent creek works by Melbourne Water.
- Wetlands.

The Creeklands are valued for their environmental, aesthetic, educational, recreational / social, cultural and spiritual qualities; it is a tranquil bush and parkland setting in which to jog, walk, play, cycle or just relax. The parkland is well used by and is very accessible to the local community where there is strong community interest in the way the land is managed. The landscape of the Creeklands is an integral part of Blackburn's neighbourhood character.

The Blackburn Creeklands Advisory Committee is appointed by Council and comprises volunteers from the local community. The Advisory Committee has produced the *Blackburn Creeklands Strategic Plan 1997 – 2002* which has been incorporated into this Master Plan.

Vision Statement of the Blackburn Creeklands Advisory Committee

In its Strategic Plan 1997 – 2002, the Advisory Committee has a vision of the Creeklands as:

> ***"An area that is primarily indigenous bushland with emphasis on the scenic value of the creek. While the main use of the park is for recreation by the local community, it also serves as a vital link in the Gardiners Creek wildlife corridor."*** p-2.

The intention is:

> "***To preserve and regenerate areas of natural bushland which resemble as closely as possible their original indigenous state, while recognising historical and other significant landscape features."*** p-3.

This Master Plan builds on the Committee's vision and provides directions for future improvement and management of the Blackburn Creeklands.

2. OBJECTIVES OF THE PLAN

Objectives of the Master Plan are to:

- Preserve and enhance the natural attributes of the Creeklands for future generations
- Improve vegetation quality and habitat for native fauna
- Provide a greater understanding of vegetation communities in the Creeklands and related issues such as weed invasion
- Reflect Council, Melbourne Water, the Blackburn Creeklands Advisory Committee and community aspirations for the Creeklands
- Clarify areas with conflicting management approaches to ensure that environmental interests and landscape features are adequately balanced
- Provide a range of leisure opportunities which are compatible with the park's environmental qualities
- Recognise the importance of the Creeklands in its regional context
- Provide educational opportunities at the park through interpretation and promotional material
- Continue to encourage environmental interest in the Creeklands
- Identify opportunities for improvement of the Creeklands, on matters such as vegetation and habitat management, site rehabilitation, visitor needs, community involvement and education, safety and aesthetic appeal
- Produce recommendations and actions which are environmentally responsible, practical, achievable, affordable and well understood.
- Provide a resource document that is available for the community and Council.

3. OUTCOMES OF THE PLAN

The Master Plan will:

- Assist Council in programming park improvements in the capital budget and in performing its day to day maintenance responsibilities. Each year, Council prepares its budget for infrastructure and service improvements across the City. The recommendations in this Master Plan will be prioritised in consultation with the Advisory Committee for implementation via either the capital works program or through maintenance regimes for the park.

- Clarify for the broader community, Council's intentions for improvement and management of the park into the next decade.

- Provide guidance to the Advisory Committee for activities such as working bees.

The Plan is to include the following outcomes:

- A site analysis of existing physical conditions, current and emerging issues and opportunities.
- Investigation of vegetation communities including species, location, quality and habitat value.
- Identification of existing weeds, potential weed problems and priorities for their control.
- Areas for vegetation improvement based on existing and projected original communities.
- Opportunities for habitat enhancement for native fauna.
- Suitable leisure opportunities and facilities for park visitors.
- Clarification of Melbourne Water and Council park management practices and responsibilities in the park.
- Assessment of the impact of creek rehabilitation proposals by Melbourne Water and other opportunities to improve the creek environs.
- Assessment of pedestrian circulation patterns and access to the Creeklands.
- Consideration of infrastructure improvements or facilities (such as playgrounds, trails, etc) that need to be added, replaced or relocated.
- Opportunities for interpretative material and promotion of the park.
- Recognition of the heritage values of the Creeklands.
- Reinforcement of the role and value of the Advisory Committee.
- Recommendations for use, management and improvement of the Creeklands which:
    - ❖ sustain and promote the environmental qualities of the park for present and future enjoyment.
    - ❖ balance the community's varying expectations for uses, park management and landscape appeal.
    - ❖ reinforce the importance of the 'treed' landscape of the Creeklands to local neighbourhood character.
- Identification of items for inclusion in Council's capital and recurrent budget planning processes.

The recommendations in the Plan take into account a range of matters, including:

- Council, Advisory Committee and broader community opinion and interests
- An assessment of flora, fauna and habitat which has been undertaken for the Master Plan by Practical Ecology Pty Ltd. The assessment will form the basis of recommendations on future management and improvement of vegetation, habitat and fauna and is therefore a key part of the Master Plan. Refer Appendix A.
- The Melbourne Water Study by Ove Arup & Partners for Gardiners Creek
- Existing park conditions and features
- Current maintenance practices and maintenance resource considerations
- Key environmental values of the Creeklands
- Existing planting styles and landscape character of the park and its surrounds
- Practical projects undertaken by the Advisory Committee
- Recreational use of the park, existing facilities and visitor needs
- The strategic and urban context of the Creeklands, including reference to relevant policy and strategic documents
- Natural and cultural history of the Creeklands
- Management of interfaces with the creek, road frontages and adjoining property.

4. BACKGROUND

4.1 A Recent Chronology

Council's ownership in the park has occurred progressively between 1941 and 1988, commencing with purchase of Furness Park from Albert George Furness in 1941, followed by Blacks Walk from the Melbourne and Metropolitan Board of Works (MMBW) and parts of Kalang Park in the 1960s. Other lineal portions of Kalang Park were obtained in the 1980s. In total, Council owns approximately 16.5 hectares of the park. Melbourne Water owns a substantial tract of land in Kalang Park along the creek between Pakenham and Main Streets, as well as a small parcel in Furness Park, totalling approximately 2.5 hectares. Refer to the Property Acquisition Map.

Other events in the recent history of the park are as follows:

1955 – 1975	Extensive drainage works by MMBW along the central, most flood-prone section of the creek.
1964	Kalang Park oval established. The oval became used over the years for football, cricket, athletic training & baseball, gridiron and horse shoe pitching.
	Garie Street Guide Hall constructed.
	Blackburn Open Air School in Furness Park closed.
1965	Kalang Park pavilion constructed.
	Concept Plan prepared for Black's Walk by Ellis Stones, Landscape Designer.
1966	Blackburn Bowls Club leased site on the east side of Pakenham St. (7 year term)
	Kalang Park playground constructed.
1967	Blackburn Bowls Club constructed.
1968	Pakenham Street Scout Hall constructed.
1971	Construction of baseball diamond and backnet at Kalang Park. Blackburn Baseball Club established at Kalang Park for winter competition and in 1974, summer competition started. The Club moved to Billabong Park in 1976. Kalang Park was then used by Nunawading Baseball Club in winter and by the Blackburn Church of Christ Cricket Club and the Doncaster Baseball Club in summer.
1973	Renewal of lease to the Blackburn Bowls Club (10 year term).
1976	National Trust of Australia placed a landscape classification on Furness Park, Blackburn Lake and road reserves and front gardens in some local streets.
1979	Kalang Park cricket nets constructed between the oval and the creek.
1983	Local community lobbied State government and Council to rezone land between Pakenham and Main Streets from residential to open space and for Council to purchase the land from the MMBW, making a major addition to the park and completing an important link. Much of this area was being used for horse agistment in the 1970's.
1984	Linear Park Committee of Management formed which is now known as the Blackburn Creeklands Advisory Committee. Draft concept plan prepared by the Committee.
	Renewal of Blackburn Bowls Club lease (20 year term expiring 2005).
	House demolished at 64 Main Street to improve park access.

1985/86	Bowls Club car park reconstructed based on a design prepared by T. Osborn of the Advisory Committee and the Club house extended.
	Blacks Walk footbridge constructed.
1986	Last winter season of Nunawading Baseball Club.
1987	Nunawading Warriors Gridiron & Nunawading Pitcheroos Horse Shoe Pitching Clubs established at Kalang Park. Last winter season of Gridiron Club in 1988.
	Committee received Bicentennial Grant ($4000) to recreate wetland habitat below Waratah Crescent and a Land Protection Incentives Scheme Grant ($700) for a revegetation project.
	Garie Street playground redeveloped.
1988	10 year lease to Scouts near Pakenham Street (expiring March 1998).
1992	10 year lease to Guides near Garie Street (expiring September 2002).
1993	The Creeklands obtained Land for Wildlife status.
1996	Bridge at Laurel Grove replaced.
1997	Advisory Committee prepared *Blackburn Creeklands Strategic Plan 1997 – 2002*
	Enhancement of wetland below Waratah Crescent.
1998	Replacement of Furness Park playground.
	Construction of new cricket nets north west of the oval.
	Installation of solar lights near Laurel Grove
1999	Melbourne Water prepared Study for Gardiners Creek.
	Notice board installed in Kalang Park.
2000	Renewal of Scouts lease (10 year term expiring November 2010).
	Replacement of Kalang Park playground.
2002	Replacement of Blacks Walk playground

4.2 The Committee & Community

From time to time, the broader community contacts Council about various matters. Residents value the special environment of Blackburn. The treed environment, semi-formal roads and rustic setting makes it a sought after area. Parkland such as the Blackburn Creeklands, Blackburn Lake Sanctuary, the Blackburn Triangle (corner Canterbury and Blackburn Roads) and Wandinong Sanctuary contribute significantly to the Blackburn character and local residents take a keen interest in the management of these parks.

Historically, the Blackburn community has held a close association with the Creeklands. On 26 March 1984, following purchase of the Pakenham to Main Street link and plans by the Blackburn Bowls Club to expand the adjacent car park, Council resolved to call for nominations for a Committee of Management, consisting of eleven nominees, for the parkland along Gardiners Creek between Middleborough and Blackburn Roads. The stated aim for the Committee was:

"To develop and maintain the reserve as a linear park enhancing its natural assets and promoting its diverse recreational opportunities."

First members of the Committee (then termed the "Linear Park Committee of Management") were appointed by Council on 28 May 1984 from a field of nominees representing:

- Laburnum Primary School
- Blackburn Bowls Club
- Nunawading Baseball Club
- Local residents
- Blackburn Creek Conservation Group
- Blackburn & District Tree Preservation Society
- Men of the Trees Committee

On 26 November 1984, the group became The Blackburn Creeklands Committee of Management and the Linear Park was renamed the Blackburn Creeklands with the individual parts of *"Furness Park, Garie Street, Blacks Walk and Kalang Reserve"* retaining their existing names to preserve historic links with specific areas.

The Advisory Committee currently has 15 members appointed by Council from interested residents who volunteer their time to provide advice and practical assistance to Council on the use, care, forward planning and improvement of the Park. The Committee provides a means of communication between residents living near the Creeklands, users of the Creeklands and Council.

4.3 Creeklands Management

Council owns and manages most of the Creeklands. Except for the creek itself, all capital improvement and day to day maintenance of the Creeklands is undertaken by Council. Other parties with a direct interest in the Creeklands are:

- Melbourne Water which manages the flood and drainage functions of the park, is responsible for maintenance of the creek up to the top of the bank and holds title to portions of the park. Council maintains part of these land parcels. Melbourne Water has recently completed a Study for the creek environs to assist with planning and budgeting for future works to address issues of flood control, erosion and creek stability. Recommendations in the Melbourne Water Study extend beyond the creek bank, impacting on planning for the park as a whole and providing opportunities for a range of joint projects. These recommendations will be taken into account as part of this Master Plan.

- The Blackburn Creeklands Advisory Committee which provides advice and practical, hands-on assistance to Council in the park as well as being a medium for communication on park matters and with the local community. Strategy plans prepared by the Advisory Committee in the mid '80s and in 1997 are a useful source of background information and provide input to Council's Master Planning process.

- Environment Protection Authority for water quality.

- Department of Natural Resources and Environment for fauna and habitat protection and related legislation.

- Lessees such as the Guides, Scouts and Bowls Club as well as the sporting groups that are seasonally allocated to Kalang oval.

On an annual basis Council approves a budget for recurrent expenditure on maintenance of all Whitehorse parks. Maintenance by *ParksWide* is undertaken in accordance with relevant Council policies and specifications for Park Maintenance and Horticultural Services. In the Creeklands, recurrent expenditure covers the following items:

- Bushland management – primarily revegetation, weed control and vegetation maintenance. The community's assistance in bushland management is acknowledged. External contractors

skilled at environmental projects are also used by Council for specific tasks such as weed removal, site restoration and management of high quality bushland.

- General parkland management items such as grass cutting, tree works, litter collection, fire protection works and maintenance of assets such as fencing, bollards, playgrounds, furniture and trails.

Whitehorse undertakes an annual inspection with the Metropolitan Fire and Emergency Services Brigade (MFESB) to assess the adequacy of fire protection in parkland across Whitehorse. In sensitive bushland areas, Council and the MFESB have been able to provide appropriate fire prevention while maintaining the integrity of the bushland.

Council's local laws officers conduct patrols through the Creeklands on a random basis and respond to any complaints received.

Capital expenditure is also allocated annually for new park improvements and asset replacement / upgrades for specific parks projects across the City.

4.4 Capital Budget – A Decade

Capital works prior to 1988 included planting, weed control, trail development, seats, creek crossings, tree identification plaques and playgrounds. Annual allocations since 1988 are as follows:

1988/89	$16,000 - trees shrubs ($4,000); walking tracks ($8,000); Main St entrance ($4,000)
1989/90	$22,000 - general improvements
1990 / 91	Nil
1992/93	$16,000 - general improvements ($5,000); car park lighting ($11,000)
1993/94	$1,500 - general improvements
1994/95	$2,500 - general improvements
1995/96	$40,500 - general improvements ($2,500); Laurel Gve footbridge replaced ($38,000)
1996/97	$10,000 - wetland development
1997/98	$51,000 - solar lights ($12,000); Furness Park playground replacement ($26,000); replacement of the cricket nets and removal of old nets ($13,000).
1998/99	$2,500 - notice board.
1999/00	$25,000 – Kalang Park playground replacement.
2000/01	$2200 minor trail works
2001/02	$31,000 – Blacks Walk playground replacement.

The Creeklands also benefited from the former Nunawading Council's Web of Greenways program under which many trees and shrubs were planted at various strategic sites across a number of municipal reserves. The program, initiated in 1989, was supported by injection of capital funds ranging between $25,000 – $50,000 per annum over successive years up to 1995/96. The objective of the program was *"to provide a vegetation link between parks, tree reservations and street plantations to assist the movement of birds and other animals within and through the municipality"*. (Nunawading City Council). The City of Whitehorse has continued a capital tree planting program over recent years and a number of advanced indigenous trees have been planted in the Creeklands.

4.5 Strategic Planning & Regional Context

This is the first complete Master Plan prepared by the City of Whitehorse for the Blackburn Creeklands. The Advisory Committee has documented its directions in *Blackburn Creeklands, Strategic Plan 1997 – 2002* which has been considered in preparing this Master Plan. Other Council strategies and policies which are relevant to this Master Plan follow:

4.5.1 Parks Victoria - A Guide to Priorities for Melbourne's Open Space Network - Yarra Region (revised 1998)

The Guide recognises the Creeklands as a habitat and recreational link and acknowledges that the open space network in the Central Yarra Region (which covers most of Whitehorse) is already well advanced. Priorities in this Region relate mainly to refinement of the existing network.

4.5.2 Yarra Catchment Action Plan (1997)

The Blackburn Creeklands are within the Yarra Catchment. The Yarra Catchment Action Plan lists a number of broad strategic programs of particular relevance to the Creeklands regarding:

- Waterway management
- Native vegetation and fauna enhancement
- Weeds and pest animal management
- Stormwater management
- Recreation and tourism
- Integrated fire management

4.5.3 Corporate Plan 2002 / 2004

Vision: *"A City with an outstanding natural, built and social environment for the residential, business and evolving needs of the community."* (p 2).

The Corporate Plan provides a framework for Whitehorse City Council which embodies the following principles relevant to this Master Plan:

- Planning for and implementing improvements to the City's natural and built environments
- Protecting and maintaining the City's remnant flora and fauna
- Enhancing the City's natural beauty
- Delivering a high standard of services and facilities that meet community needs, provide value for money and operate efficiently
- Fostering a supportive community spirit and City pride with opportunities for its citizens to cherish, protect and celebrate its heritage and diversity.

4.5.4 Whitehorse Municipal Strategic Statement (1999)

The Municipal Strategic Statement provides direction for appropriate land use and development in Whitehorse and the strategic basis for statutory controls contained in the Whitehorse Planning Scheme (section 4.6.6). The Municipal Strategic Statement (MSS):

- Recognises the importance of the mature tree canopy to the bushland character of many parts of Whitehorse and the need to provide controls that will protect these assets.
- Recognises the Gardiners, Mullum Mullum, Dandenong and Koonung Creeks as having significant environmental, landscape and recreation value. *"Some areas require vegetation and habitat protection while other more accessible areas are suitable for recreation purposes."* (p 3)
- Identifies protection and enhancement of the integrity of remnant bushland and waterways as a key challenge. This includes the need to control pest plants and animals.
- Acknowledges the vegetation and landscape controls and the National Trust classification that have existed over parts of the Blackburn area for many years and the need to ensure *"that built features are subservient to vegetation and the provision of sufficient open space to sustain the large, mature trees."* (p 19)
- Recognises the importance of open space and recreation facilities in Whitehorse and the need to upgrade these to meet the needs of the community.

Objectives of the MSS which are particularly relevant to this Master Plan include:

- *To recognise, protect and enhance open spaces and waterways of environmental or historical significance (p 22)*
- *To improve open space facilities throughout the City (p 24).*
- *To protect open spaces of special significance (p 25).*

Actions in the MSS which relate to open space improvement are:

- *Prepare Management Plans outlining the future use and development of open space areas …*
- *Purchase land identified in the Open Space Strategy that would improve open space facilities and linkages.*
- *Extend the City's bicycle path network in accordance with the recommendations of the Whitehorse Bicycle Strategy.*
- *Undertake capital works to improve the accessibility, character and attributes of all open space areas.*
- *Provide education and interpretation facilities to improve the appreciation and enjoyment of open spaces of environmental or historical significance.*
- *Maintaining and improving green corridors to allow for the movement of native fauna through the municipality and to and from adjacent areas.*
- *Negotiate and develop open space links with relevant landowners, including government agencies and adjoining Councils to implement the findings of the Open Space Strategy.*

- *Co ordinate planning and management of open space on a regional basis by liaising with relevant management authorities and community groups in the development and implementation of management plans. (p 24)*

4.5.5 Whitehorse Planning Scheme

The following Zones and Overlay Controls apply to the Creeklands:

- ***Public Park and Recreation Zone*** over most of the park. This zone is for recreation and open space purposes but also aims to protect and conserve areas of significance.
- ***Urban Floodway Zone*** for land south of the Furness Street properties
- ***Public Use (Service and Utility) Zone*** over the Melbourne Water land parcel in Kalang Park
- ***Land Subject to Inundation Overlay Controls*** over the above two land parcels. A Special Building Overlay is also proposed over land subject to inundation within the one in one hundred year flood event. This will affect large parts of the Creeklands.

Parts of the surrounding residential area, mainly the areas north and south of Kalang and Furness Parks, have ***Significant Landscape Overlay Controls***. This Overlay Control is intended to protect the special character of the Blackburn / Bellbird area and the National Trust classified streetscapes.

Native Vegetation controls affect *all contiguous land in one ownership* with an area of 0.4 hectare or more and therefore apply to the Blackburn Creeklands. The purpose of the controls is *to protect and conserve native vegetation to reduce the impact of land and water degradation and provide habitat for plants and animals*. A planning permit is required to remove, destroy or lop native vegetation. A number of exemptions apply including (but not limited to) removal of native vegetation which is dead, which presents an immediate risk of personal injury, for emergency works, for fire fighting purposes or for fire breaks up to 6 metres wide.

The Planning Scheme also includes a local policy on tree conservation. The policy recognises that *"retention of existing trees and the provision of sufficient space for regeneration are … key strategies to preserve and enhance the amenity of the municipality."* (Clause 22.04; p 1).

A series of State Planning Policies provide a broad context for the Creeklands relating to:

- Catchment, waterways & groundwater protection
- Floodplain management
- Protection from wildfire
- Heritage
- Open space
- Conservation of native flora and fauna

4.5.6 Open Space Strategy - Stage 1 Inventory (1996)

The Blackburn Creeklands are identified as Linear Open Space and as a proposed Secondary Open Space Link.

4.5.7 Whitehorse Bicycle Strategy and Works Program (1997)

The Bicycle Strategy identifies the Creeklands as an existing trail and states that the present character of the trail is to be retained.

4.5.8 Whitehorse Conservation Framework (1998)

The Framework provides a context for Council's involvement in conservation matters and includes the following relevant goals:

- Continue to increase the amount and diversity of indigenous vegetation
- Increase tree canopy
- Enhance wildlife protection
- Reduce waterway pollution

4.5.9 Vegetation Management in Parks (2000)

The document consists of a report and policy with guidelines for management of vegetation in Council managed parks. Objectives of the Policy are:

- *To ensure responsible management of habitat and vegetation.*
- *To ensure that management of vegetation reflects community priorities and expectations.*
- *To provide opportunities for community input to management of vegetation in parks. (Policy p 1)*

The report that accompanies the Policy:

- *Details the background and considerations that guide vegetation management in parks that the City of Whitehorse manages across the municipality; and*
- *Describes and discusses the management structures and decision-making processes that guide long term and day to day management of parks and their vegetation. (Report p 3)*

4.5.10 Whitehorse Streetscape Policy & Strategy (2002)

The Street Tree Strategy guides street tree planting in the City. Proposals for new street tree planting are to consider local conditions as well as preferences that emerge during community consultation. The Strategy highlights that it is desirable to enhance, connect and extend the natural systems in the City (which includes the Gardiners Creek corridor) by:

- Planting indigenous species in streets which connect natural systems
- Planting indigenous and native species as signature species in streets or groups of streets with poor character
- Restricting introduction of indigenous / native species in precincts with established deciduous character.

Recommended species for the area bounded by Middleborough, Whitehorse, Blackburn and Canterbury Roads are *Acacia melanoxylon*, *Eucalyptus* species (including indigenous stock), *Liquidambar styraciflua* and *Quercus palustris* in minor role to maintain autumn highlight and consistent avenues. The recommended planting styles in this area are avenues and *"informal indigenous groupings of Eucalyptus / Acacia melanoxylon in indigenous character streets which form part of the Gardiners Creek / Blackburn Lake indigenous character group." (Appendix D)*

4.5.11 Playground Strategy (1998)

The Strategy is used to program playground upgrades and replacements and identifies new playground sites. A new playground was constructed in Furness Park in 1998. The playground on Kalang Street was replaced in 2000. Replacement of the Garie Street playground in Black's Walk is recommended, but the timing and detail of this project has not been determined.

4.5.12 The Bushland Reserves Fire Management Strategy (1997)

The Strategy identifies the measures required for bushfire safety on and adjacent to the bushland reserves within the City of Whitehorse, but recognises the importance of remnant vegetation at these reserves for their contribution to community values and fauna and flora conservation.

The Draft Bushland Reserves Fire Management Strategy (December 2001) identifies Kalang Park as having *"a relatively lower bushfire threat".*

Site actions are reviewed on an annual basis and the current fire management actions at the Blackburn Creeklands involve maintenance of a 5m strip (approx) along south & east boundary from Laurel Grove south to the rear of No. 6 Haydn Street. Changes to annual actions are influenced by changes within the bushland site or on adjacent properties.

5. SITE ANALYSIS & OPPORTUNITIES

Refer Site Analysis drawings (sheets 1 – 4).

5.1 Terrain & Aspect

The Blackburn Creeklands is a linear park that extends approximately 1.6 km from east to west between Blackburn and Middleborough Roads. The park varies in width between approximately 265m at Kalang Park and approximately 25m at the Blackburn Road end of Furness Park.

The park offers trails along gentle gradients at the creekside and steeper trails across more elevated parts of the park north of the creek in Blacks Walk and Furness Park. Slopes range from 1 : 3 – 1 : 2 (approx 30 - 50% slope) along the embankment below Myrtle Grove and 1 : 5 – 1 : 3 (approx 20 – 30%) in the north western portion of Blacks Walk to 1 : 100 – 1 : 33 (approx 1 - 3%) fall across the flatter parts of the Creeklands.

Gardiners Creek is the key topographic feature of the park and along with the bushland is the focal point for recreational and environmental pursuits. Wetlands and marshes are located adjacent to the creek in Kalang Park below Waratah Crescent and Malcolm Street. Parts of the creek are deeply incised, with steep banks of up to 3 metres in depth.

Creekside vistas are a feature of walks through each park, but are particularly dominant along Kalang Park where, except for the sports oval, the park is characteristically linear and narrow. More expansive views over open parkland are available in Blacks Walk, across grasslands south of the Creek and around the playground adjacent to Garie Street, in Kalang Park across the sporting oval and in Furness Park around the playground and north of the creek. Sweeping views from elevated sites are not common in this park due to the filter provided by the bush and tree canopy. For example, the hilltop trail along the north western portion of Blacks Walk offers some glimpses below at breaks in the vegetation. There are views into the creek itself from formal and informal trails nearer the creek, bridges and roads.

Key views along the Creeklands are shown on the site analysis plan.

Key Issues

- Identification of key views and vistas
- Taking advantage of / enhancing key views and vistas
- Accessibility and safety of trails in steep areas. e.g. Blacks Walk
- Impact of hard interfaces on views

Opportunities

- Retaining and enhancing vistas along creekside trails in all parks
- Creating defined creek edge viewing points. Discouraging informal viewing points along remaining unconstructed trails.
- Retaining sweeping views across grasslands:
  - ❖ south of the creek in Blacks Walk
  - ❖ in the vicinity of Garie St
  - ❖ across Kalang Oval
  - ❖ either side of the creek in Furness Park
- Filtering views from within the park toward heavily trafficked roads, principally Middleborough Road, using light screen planting.
- Enhancing views into the park from all other adjoining streets.
- Improving trails to steeper terrain in Blacks Walk below Salisbury Ave.
- Softening of fence lines and other hard interfaces. e.g. Around the Scout and Guide Halls; fencelines at rear of Salisbury Avenue and Boongarry Avenue, along side Laburnum Primary School, the eastern part of the Heath Street frontage and along the northern boundary of Furness Park; and the Harry / Kalang Street frontage.

5.2 Vegetation

Vegetation management is a central issue in this Master Plan. Recognising the importance of vegetation in the Creeklands and its role as a wildlife corridor and as habitat, Council has sought an independent environmental assessment of vegetation and fauna by Practical Ecology Pty Ltd which is included as a reference document with this Master Plan. Refer Appendix A. Key points from the vegetation assessment are outlined below.

A broad summary of the Creeklands is as follows:
"There are the odd remnant trees that may pre-date European settlement, a ground storey dominated by exotic grasses (an indicator of extensive clearing) and a great diversity of shrub and tree canopy species. The modern landscape is again bush and dominated by trees after a period of agriculture, although these trees vary from remnant trees to introduced natives to exotic species, Much of the current tree canopy also consists of invasive weed species, particularly Desert Ash,…Willows…and Box Elder…" p-4 *"…there is still very little indigenous ground storey anywhere in the local landscape."* p-3.

101 indigenous and 113 introduced (including both Australian native and exotic plant) species were found in the Creeklands. *"The diversity of indigenous plants was relatively minimal but this is an expected finding considering the disturbed nature of the Creeklands. Most of the Creeklands is only remnant over storey at most with only a few areas of indigenous ground storey, where greater diversity would occur."* p-4. The high proportion of introduced species is also to be expected given the urban context of the park and its level of disturbance.

5.2.1 Indigenous Plants

There are no species in the park that are of National or State Significance. The following species are of regional significance:

Common Name	***Species***
Myrtle Wattle	*Acacia myrtifolia*
Water Plantain	*Alisma plantago-aquatica*
Spear Grass	*Austrostipa pubinodis*
Tassel Sedge	*Carex fascicularis*
Pale Flax-lily	*Dianella longifolia*
Hop Bitter Pea	*Daviesia latifolia*
Silver-leafed Stringybark	*Eucalyptus cephalocarpa s.l.*
Running Postman	*Kennedia prostrata*
Yellow Grass Lily	*Tricoryne elatior*

5.2.2 Weeds

The report highlights pest plants as the most significant threat to environmental values in the Creeklands. A number of the introduced plants cause minimal problems at the park, but many of them are invasive and are either "environmental weeds" or declared noxious weeds (i.e. Regionally Controlled under the *Catchment and Land Protection Act* 1996). Of the latter, most are under control, but a few which are more difficult to eradicate, such as Angled Onion and Soursob, are still common. Whitehorse City Council has a statutory responsibility to control Regionally Controlled weeds. Regionally Controlled weeds in the Creeklands are:

Common Name	***Species***
Angled Onion	*Allium triquetrum*
Spear Thistle	*Cirsium vulgare*
Hawthorn	*Crataegus monogyna*
Flax-leaf Broom	*Genista linifolia*
St. John's Wort	*Hypericum perforatum*
Soursob	*Oxalis pes-caprae*
Blackberry	*Rubus fruticosus spp. agg.*
Gorse	*Ulex europaeus*

High priority weeds have been identified at the park mostly because they dominate the ground storey where they exist and can spread over long distances. Patches of weed in areas that have a substantial amount of indigenous vegetation are the highest priority. The Practical Ecology report lists the following High Priority weeds:

Common Name	***Species***
Box Elder	*Acer negundo*

Angled Onion	*Allium triquetrum*
Madeira Vine	*Anredera cordifolia*
Bridal Creeper	*Asparagus asparagoides*
Poison Hemlock	*Conium maculatum*
Velvet Cotoneaster	*Cotoneaster pannosus*
Hawthorn	*Crataegus monogyna*
Cape Ivy	*Delairea odorata*
Desert Ash	*Fraxinus angustifolia*
Flax-leaf Broom	*Genista linifolia*
English Ivy	*Hedera helix*
Jerusalem Artichoke	*Helianthus spp.*
St. John's Wort	*Hypericum perforatum*
Japanese Honeysuckle	*Lonicera japonica*
Soursob	*Oxalis pes-caprae*
Cherry Plum	*Prunus cerasifera*
Creeping Buttercup	*Ranunculus repens*
Blackberry	*Rubus fruticosus spp. agg.*
Willows	*Salix spp.*
Tree Tobacco	*Solanum mauritianum*
Jerusalem Cherry	*Solanum pseudocapsicum*
Wandering Creeper	*Tradescantia albiflora*
Blue Periwinkle	*Vinca major*
Bulbil Watsonia	*Watsonia meriana*

5.2.3 Vegetation Quality

The categories used to assess vegetation quality have been expanded and modified from the four level model by Buchanan (1989). This enables the wide variety of site conditions at the Creeklands and the diverse values of the urbanised parkland to be taken into account. The scale considers the quality of the different layers (ground, middle and over storeys) in terms of the indigenous / exotic mix and takes into account the revegetation areas.

Areas dominated by indigenous vegetation are present in several locations generally as small disjointed islands. Most of these pockets are as a result of revegetation activities. Examples are:

- ***Blacks Walk*** in areas north of the creek including the largest block of intact vegetation in the Creeklands, supported by an equally large adjoining revegetation site.
- ***Kalang Park*** at the Laurel Grove bridge approaches and other recent revegetation sites, the most extensive being the wetland and below Myrtle Grove.
- ***Furness Park*** toward Gardenia Street and the Willow revegetation site.

Areas with a moderate level of indigenous species but often with substantial weeds present, are better represented than the above. Results could be achieved in these areas, elevating their status to better than moderate indigenous cover and achieving more cohesive areas of good quality habitat. Broadly, these sites are:

- ***Blacks Walk*** along the creek.
- ***Kalang Park*** in a more scattered and disjointed arrangement with the largest blocks being west of Waratah Crescent, north of Malcolm Street and the woodland east of Laurel Grove.
- ***Furness Park*** south of the creek.

Most other parts of the Creeklands are dominated by exotic vegetation.

The Practical Ecology report states that: *"All remnant vegetation and populations of indigenous flora and fauna in the study area are of local* [City of Whitehorse] *significance. This significance is given* [because of] *the major depletion and poor condition of indigenous vegetation and habitats in the region as a whole, particularly a substantially cleared and developed area such as the City of Whitehorse and the Melbourne region."* p - 7

5.2.4 Past Vegetation Communities

The reconstruction of past vegetation communities is an interesting exercise and a valuable tool for future revegetation by providing a structure and a template to assist in Council and community plantings. However, conditions at the park have changed dramatically over time, making it

difficult to identify these communities. The Practical Ecology report identifies up to four possible communities (below) and describes their character species, abundance and distribution.

Yellow Box Open Forest on dry areas above the floodplain
Manna Gum Riparian Forest on floodplains and well drained stream terraces
Swamp Paperbark Scrub in depressions where water accumulates on the floodplain
Swamp Gum Riparian Forest in seasonal winter fed drainage lines.

These communities are described as being of local significance with the Yellow Box Open Forest being local, at best. The report also broadly identifies **wetlands** as an artificial vegetation community added quite recently to the Creeklands.

5.2.5 Management Blocks

Twenty six (26) Management Blocks have been defined across the Creeklands. Each Management Block has clear physical boundaries and contain similar conditions. They provide a useful reference tool for programming future work. The characteristics and issues for each Management Block are detailed in Table 4 of the Practical Ecology report.

In broad terms, lack of habitat, weed infestations (particularly along the creek), remnant tree dieback, public / private land interface and opportunities for habitat protection and enhancement are management issues that feature consistently across a number of Management Blocks. There are also references to a number of potentially hazardous trees. These are currently being addressed and continue to be monitored on an annual basis through the community 'walk through' inspection process. Most of the trees of concern have been able to be retained with varying degrees of remedial arboricultural attention.

The description of Management Blocks identifies four areas as being of local conservation significance – *"they stand out as the most intact and diverse areas of flora and habitat within the local context of the Creeklands"* p-19:

Blacks Walk Hillside comprising an open grassy woodland on the dry slope in the Blacks Walk Northwest Block and is one of the only examples within the Creeklands.
Waratah Crescent Escarpment on the north side of the creek with remnant vegetation, including ferns. It includes the Pakenham St. East - North Side and Waratah Crescent West Blocks.
Waratah Crescent Wetland comprising an artificial wetland that supports many waterbirds.
Laurel Grove East Woodland comprising an open woodland with clumps of regenerated shrubs and understorey. This is probably the largest contiguous block of such habitats in the Creeklands. Laurel Grove East - South Bank Block.

All of these important areas have strong community involvement in their restoration and ongoing management.

5.2.6 Threats to Vegetation

The Practical Ecology report identifies the following threats to fauna and their habitat:

Weeds identified as the most significant threat to environmental values in the Creeklands.

Tree decline and dieback from canopy defoliation, which is of particular concern for remnant trees in open areas that have had their original ecosystems removed. Some dieback is occurring at the Creeklands. The cause of dieback of those trees situated within native vegetation is difficult to establish; grazing by possums may be a contributing factor.

Introduced pests such as blackbirds, foxes and starlings that contribute to the spread of weed seed over long distances together with exotic snails and slugs which may cause a decline in plant species such as lilies and orchids.

Boundaries with private land exposes the Creeklands to further invasion from weeds. Some planting by neighbours extends into the park and includes noxious and environmental weeds.

Creek bank erosion threatens to undermine sections of vegetation. Actions recommended in the Melbourne Water study are also a threat to vegetation (e.g. laying back banks, stabilising

rockwork and access to the creek for works) although in places the revegetated result will vastly improve the landscape.

Fire which can be an opportunity as well as a threat. Some indigenous flora are perpetuated by fire, but problems may occur if burns are too frequent. Fire can also be an issue for fauna. However, it is a valid management tool if used to increase rather than decrease biodiversity. Council has a fire management strategy for its bushland reserves. This strategy tries to balance the sensitivity of bushland areas and the need to reduce the fire hazard to adjoining properties.

Key Issues

- Weed management
- Revegetation and regeneration techniques – returning areas to bush
- Trees in decline – Management of dieback and dangerous trees
- Vegetation management and restoration techniques. e.g. Alternative models for revegetation
- Site selection for successful revegetation
- Species diversity
- Planting styles for different functional areas – bush areas, open grassland, formal recreation, entrances, boundary interfaces and narrow / constrained areas
- Protection of feature trees and important vegetation communities
- Implications for creekside vegetation in erosion control works proposed by Melbourne Water
- Safety for park users
- Fire hazard management
- Municipal strategies for adjoining areas to complement values of the park – complementary road verge planting, planting by adjoining residents, etc.

Opportunities

- Management of weed infestations in conjunction with revegetation / regeneration strategies. This may involving applying a range of different revegetation / regeneration techniques best suited to particular sites. The Practical Ecology report describes these alternative models and provides the following broad principles:
  - control high priority weeds throughout the park
  - control most weeds in areas of indigenous vegetation to protect the integrity of those communities
  - fill gaps created through weed control with indigenous species
  - ongoing reintroduction of indigenous species into the landscape to generate a long term shift from a *"predominantly exotic seed production load to a predominantly indigenous seed production load."* p-29
- Learning from past revegetation and regeneration projects in terms of techniques that have succeeded and those that have not.
- Regular monitoring of the condition of trees and implementation of measures to improve the environment and health of declining trees (e.g. associated indigenous ground storey planting, etc) and works to address tree safety where necessary. Note: Sensitive tree management is an ongoing process.
- Protect and enhance areas of good quality vegetation and take opportunities to extend and link good quality remnants to create contiguous vegetation communities.
- Recognition of the unique values and particular problems across the diverse landscape in the Creeklands by systematically implementing the site specific recommendations from the Practical Ecology report for each of the Management Blocks.
- Use the guide to past vegetation communities as a template for future plant species selection and mixes. Refine species list to create a practical planting guide.
- Tree regeneration / succession planting for future tree canopy.
- Develop and implement fire hazard reduction measures that are appropriate to the park.
- Consider the safety of park users in vegetation management and planting projects for the park and during vegetation inspections (e.g. places of concealment, sightlines, etc).
- Liaise with Melbourne Water on programs for creek stabilisation works and development of complementary revegetation projects.

- Cooperative arrangements regarding planting of the private land / park interface involving clarification of park boundaries and encouraging neighbouring properties to have stewardship of the park, preferably planting indigenous species at the park interface.
- The continued strong involvement of the Advisory Committee in revegetation as well as in monitoring of species.

5.3 Fauna & Habitat

The independent report by Practical Ecology investigates fauna and habitat in the park. Following is a summary of that report.

A detailed survey of fauna was not undertaken as part of the report and the study is based on existing records. Bird records are extensive, but records for other fauna in the Creeklands are not. It is noted that information from the Victorian Wildlife Atlas is for the general area (i.e. within a square kilometre of the Creeklands) but is still an important indicator as many of the species may use the Creeklands' habitats. The most significant gap is in records for reptiles and amphibians; information on mammals is also scant. This is not necessarily due to this and other species being absent, but rather a lack of formal recording. Unofficial information from the local community confirms common sightings of some species that have been recorded (eg: possums) and sightings of other species that have not been included in the Victorian Wildlife Atlas. While better records for the Creeklands would be an advantage, efforts toward habitat management and enhancement can still continue, but should be conservative.

Whitehorse has a statutory responsibility to protect and manage the habitat of significant species listed under international treaties, the Flora and Fauna Guarantee Act 1988 and the Environment Protection and Biodiversity Conservation Act 1999.

5.3.1 Birds

131 bird species have been listed. The recorded species include birds of International, State and regional significance. There are no birds of National significance. Wetland birds are well represented, but those usually found in fringing reed habitats are not. Woodland birds are reasonably represented due to the presence of dense bush areas. Raptors are poorly represented, requiring paddocks for hunting and platform nesting sites in large trees. Birds needing tree hollows are also poorly represented.

5.3.2 Mammals

Four (4) indigenous mammals have been officially recorded but the last sightings of an Echidna and Gould's Wattled Bat in 1973 are quite dated. The local community has unofficially reported sightings of several other species in the park such as the Flying Fox, Sugar Glider and other unidentified species of bats and marsupials.

5.3.3 Amphibians and Reptiles

Two (2) reptiles have been recorded: the Lowland Copperhead and the Weasel Skink

5.3.4 Invertebrates

A diversity of ground dwelling invertebrates has been recorded with native species predominating.

5.3.5 Habitat Types

Even with urbanisation, the park still supports indigenous fauna. The Practical Ecology report identifies 5 habitat types and takes into account the value of exotic vegetation and weeds as habitat compared to bushland areas:

Parkland which provides poor habitat for many indigenous mammals, reptiles and amphibians but supports native birds such as Willie Wagtails, Red Wattlebirds and Noisy Miners, grass seed eaters such as Galahs and nectar eaters such as Lorikeets. Parkland is also home to exotic birds such as Indian Mynahs, Starlings and the like. This habitat type is well represented in the Creeklands but is important for a particular group of birds and should remain.

Revegetation Areas with native and indigenous trees and shrubs which provide birds with shelter, nesting sites and food and a habitat for possums. The habitat value of revegetation areas is still limited but better than parkland (above).

Creek, Wetlands and Swamp Paperbark Thickets are important for many waterbirds and thickets offer shelter, roosting and nesting space for birds and nest sites for possums. The wetland that has been created below Waratah Crescent is a successful waterbird habitat. Exotic trees such as Willows offer generally poor habitat for indigenous fauna and the nutrient load from leaf litter reduces biodiversity in the water. Fringing reeds and the waterbirds that rely on these habitats are lacking, as are shallow reed areas for frogs.

Degraded Native Forest with a number of vegetation layers present, although exotic plants and weeds dominate most of this habitat. This is the most diverse habitat available in the Creeklands for indigenous fauna.

Large Old Remnant Trees which provide nesting hollows, bark shelter and food for a large population of Rainbow and Musk Lorikeets and for possums, bats and exotics such as bees and wasps. As the number of old remnant trees decline, so do tree hollows. The trees planted in recent decades are too young to produce natural hollows and bark shelters leaving a substantial lag time during which alternative action is needed to supplement this habitat for indigenous fauna.

5.3.6 Threats to Fauna & Habitat

The Practical Ecology report identifies the following threats to fauna and their habitat:

Predation by feral and domestic predators (mainly cats and foxes) and harassment by domestic dogs, both on and off leash.

Competition for habitat components such as tree hollows. Competitors include feral honey bees, the Common Mynas and Starlings, Spotted Doves, Blackbirds and Noisy Miners.

Fragmentation of habitat which has already occurred at the Creeklands as it is isolated and is described as having few links to other areas. This affects fauna population levels and ultimately viability of the species in the park. In turn, this may affect the viability of plant species that rely on the activities of fauna to survive. Another concept is that the Creeklands consists of mostly edge habitat which tends to support a limited (usually more aggressive and adaptable) range of species than core habitat. Habitat available on private land and along streetscapes adjacent to the Creeklands is therefore important in conserving the flora and fauna of the Creeklands.

Tree decline and dieback where it has been noted in section 5.2.6 that canopy defoliation is of particular concern for remnant trees in open areas where their original ecosystem is removed and that grazing by possums may be contributing to dieback of trees.

Key Issues

- The integrity of existing habitats for indigenous fauna
- Habitat gaps
- Impact of domestic and feral animals and exotic competitors on indigenous park fauna
- The lack of records for fauna other than birds - Monitoring and recording of fauna
- Habitat corridors and refuges - Available habitat on adjoining land and open space links
- Trees in decline – Management of eucalypt dieback

Opportunities

- Retaining and enhancing existing habitats, including open parkland. e.g. Vegetation management (refer section 5.2) to improve degraded bushland areas and to protect trees, and enhancing / expanding wetland areas.
- Addressing habitat gaps where appropriate. e.g. Fringing and shallow reed habitats (perhaps in cooperation with Melbourne Water or Council wetland projects) and tree hollows (suitable nesting boxes with management and monitoring program).
- Protection of habitats from feral and domestic predators including dogs on walking trails, and exotic competitors such as feral bees and pest bird species.
- Involvement of the Advisory Committee in monitoring local fauna through formal databases, including appropriate training.
- Monitor the impact of possums on the condition of trees
- Habitat corridor initiatives which take into account the value of:
  - street tree planting
  - planting indigenous by neighbouring properties
  - enhancing links along Gardiners Creek through residential areas to Blackburn Lake Sanctuary and R H L Sparks Reserve.

5.4 Landscape Character

The random style and density of planting, the lush green growth, the creek, the large remnant trees and other native vegetation are the main contributors to the bush landscape character of the Creeklands. Together with the birds and other fauna, this bush setting (albeit interspersed with a range of exotic species, including weeds) creates an environment for visitors that is uncommon in the suburbs. The following is a 'snap shot' of the landscape character of the chain of parks:

- ***Blacks Walk*** – Characterised by filtered views across expansive mown areas, grasslands, scattered trees and elevated areas.
- ***Kalang Park*** –Rambling bush walks along trails close to the creek and wetland areas; open views across sporting areas.
- ***Furness Park*** – Characterised by mature eucalypts and bird life, especially parrots; a mosaic of open parkland and bush with focal points being the playground area and the creek.

The bush landscape of the Creeklands is complemented by the surrounding residential landscape, a large part of which is covered by special planning controls under the Whitehorse Planning Scheme (refer section 4.5.5.).

The National Trust of Australia placed a landscape classification on Furness Park, Blackburn Lake Sanctuary and road reserves and front gardens in some local streets in 1976. The area is described as *"an oasis in the suburbia in which it is now engulfed."* Streets with Classified Status that are close to the Blackburn Creeklands are:

- Hill Street
- Linum Street
- Boongarry Avenue
- Laurel Grove, between Fuchsia Street and the creek
- Acacia Avenue
- Waratah Crescent

From an extract on the classification, these streets were regarded as *"an integral part of the ecology of the Lake area, being corridors of movement, particularly for birds. … These private streets have resisted the pressures of normal streetmaking requirements and retain a quiet, almost rural character unique in Melbourne. They demonstrate an excellent integration between the natural and man-made environments. The natural vegetation, birdlife and informal roads and gardens combine to provide a rare example of rus in urbe. The importance of the environmental values provides a major link between residents and has led to greater social cohesiveness."*

Furness Park has Recorded Status. *"The two Recorded areas* [the other being part of Blackburn Lake Sanctuary] *do not have high aesthetic value. However, they both have potential for sensitive development, compatible with the general character of the Classified areas. Furness Park is an important visual and ecological link between the streets to the west of Main Street and the Classified areas to the east."*

Key Issues

- The landscape character of the Creeklands and its individual parks
- The implications for protection and expansion of indigenous bushland areas and management of exotic vegetation for its landscape value.
- Protection of key aspects of landscape character, especially remnant tree management
- Neighbourhood landscape values - Retention of trees, planting indigenous and management of invasive weed species in neighbouring gardens
- Streetscape planting species
- Integration of adjacent new residential developments

Opportunities

- Staging of weed control and revegetation as outlined in Section 5.2.
- Strategic removal of invasive exotic trees that have little or no historic / cultural associations. e.g. The remaining Pines between Laurel Gve and Main St; the Heath St Hawthorn thicket (east end); and along the general creek corridor.
- Sensitive management of trees, both healthy trees and those at risk (i.e. a responsible and consultative approach to trees at risk which is sensitive to the community's appreciation of the

Creeklands and which addresses safety issues; undertaking works in the immediate vicinity of trees to create a healthy environment for specimens).

- Identifying and enhancing landscape elements which characterise each park. For example:
  - Blacks Walk – Enhancing the sweeping grasslands and creekside vegetation.
  - Kalang Park – Improving the continuity of the lineal unfolding bush landscape.
  - Furness Park – Protecting mature eucalypts and recognising the park's Recorded Status.
- Future street tree planting to consider use of indigenous species where appropriate.
- Retention of mature trees on neighbouring property through planning controls
- Encouraging use of indigenous plants and weed control by adjoining properties. Fostering a co-operative approach to vegetation management at the park interface.

5.5 Creek Environs & Drainage

Through the Blackburn Creeklands, Gardiners Creek carries:

- a controlled flow from Blackburn Lake
- water from other Melbourne Water controlled tributaries which include retarding basins at Elmhurst Basin, Masons Road, Glen Valley Road, Forest Hill Reserve, Cornwall Street, Redlands Drive and Trade Place; and
- local runoff and stormwater via Council drains directly from the adjoining residential area.

Blackburn Creek enters the park at Blacks Walk via an open channel below Derby Street, but has been barrelled further north along the rear of properties in Salisbury Ave and Pakenham Street. West of the Creeklands the main waterway is barrelled through Sparks Reserve opening out again along the east side of Wembley Park through the Box Hill Golf Course and Gardiners Creek Reserve, then ultimately joining the Yarra River at Toorak. Upstream to Blackburn Lake, Gardiners Creek runs generally along the rear of residential properties in Jeffery Street and Naughton Grove.

The catchment for the Creeklands totals approximately 15 km^2 and extends to Mitcham, Terrara, Jolimont, Springvale, Hawthorn, Blackburn, Canterbury, Middleborough, Springfield, Springvale and Whitehorse Roads.

Melbourne Water is responsible for the flood and drainage functions of the creek and for management of the bed and banks. Whitehorse has local responsibility for the drainage network of most streets in the City and for regulating proposed drainage in new development.

There is concern over the sustainability of the creek and the impact of this on adjoining parkland, vegetation and trails. The riparian environment of both Gardiners and Blackburn Creeks is quite degraded with erosion undermining many areas. At the top of the creek bank, there a number of mature remnant eucalypt species; however the understorey is quite weedy. A section of the creek between Main Street and Laurel Grove is concrete lined and another stretch either side of Pakenham Street is rock lined. These sections provide limited opportunity for vegetation to be re-established.

A recent study for Melbourne Water by Ove Arup & Partners (1999) provides detailed investigation of Gardiners Creek (termed “Blackburn Creek” in the study) from Middleborough Road to Jeffery Street and recommends actions to overcome problems of bank instability, sediment deposition and flooding along its course. The study does not include Blackburn Creek which flows into Blacks Walk below Derby Street.

The study indicates that:

- The smaller, more frequent floods (1 – 5 year events) rather than the larger flood events, are of particular concern in terms of bank erosion and deposition of sediment. The study notes that it is “*the smaller frequent floods which increase most with urbanisation.*” (Ove Arup, 1999, p-2).
- The “stream power” is measured as high along all reaches of the Creek. Even the 1 year event has the potential to cause erosion and instability.
- The “stream power” along the natural sections of creek in Blacks Walk (particularly the western part) and Furness Park is of most concern in terms of erosion and instability. These channels have become deeply incised.
- Except for the reach below the Laurel Grove bridge to Pakenham Street, all other sections of the creek hold the 100 year flood event, indicating the extent of channel incision. The reach below Laurel Grove holds the 10 year flood event, highlighting the possibility of flooding in this area.

The study assesses the following actions:

- ***No Action*** where parkland including trees and private property would be at risk.
- ***Channel Stabilisation*** involving battering some banks and rock armouring to curb erosion. Machinery access to project sites and the rockwork would impact on existing vegetation.
- ***Modifying Existing Retarding Basins*** which would have minimal impact, as the higher frequency flows (1 to 5 year events) below Blackburn Road are the result of runoff from the local sub-catchment rather than from those areas controlled by the retarding basins.

- ***Channel Widening*** to create a stepped channel and reintroduction of debris. Reprofiling of the channel would impact on vegetation, including significant canopy trees, and on some paths.
- ***Flow Diversion*** involving "side casting" high flows out of the creek onto the floodplain in Blacks Walk and Furness Park. This option would involve considerable change to the landscape to accommodate the diverted flows with reshaping of the parkland to create levee banks and broad swales (90m wide at Furness Park and 150m wide at Blacks Walk), and vegetation removal. A piped flow diversion could be considered in the case of Furness Park to minimise disturbance to vegetation. In Blacks Walk, the proposed location of the flow diversion would be of limited benefit to flows downstream of the Blackburn Creek junction.
- ***Combination of Localised Treatments*** such as bank stabilisation, flow control structures (e.g. groynes, riffles and weirs), bunding (for flood control) and flow augmentation works.

The study recommends:

- Localised in-channel treatments as Stage 1 and follow up monitoring to gauge their success. Project sites are shown on the Master Plan drawings (sheets 1 – 4).
- Removal of weeds and inappropriate species.
- Flow diversion across Furness Park at a later stage if needed.

The Study acknowledges the significant remnant trees along the creek and highlights weed control as a major management issue. Recommended in-stream works provide an opportunity to rehabilitate these areas by removing Willows and other woody weeds and to replant indigenous species. Some works may impact on significant creekside trees.

Melbourne Water has commenced implementation of recommendations from the Study. In 2000/'01, a localised treatment was undertaken in Blacks Walk below the footbridge to remove woody weeds and stabilise the creek bank. Whitehorse and the Blackburn Creeklands Advisory Committee liaised with Melbourne Water to coordinate additional revegetation at this site with funding assistance through the Amcor *Corridors of Green* Program. It is anticipated that there will be opportunities for other joint venture and complementary projects arising from the Melbourne Water Study.

Council is currently preparing a Stormwater Management Plan. Where relevant, issues from the Melbourne Water Study will be considered as part of that process and conversely, the Blackburn Creeklands may benefit from outcomes in the Stormwater Management Plan.

Detailed investigation of water quality is not part of this Master Plan. There are currently three locations that are suited to creation of wetlands to retain and filter runoff before it enters the creek - below Malcolm Street, Myrtle Grove and Gardenia Streets. There is scope to extend the wetland that already exists below Waratah Crescent. *Waterwatch* is a community awareness and education program for monitoring the health of local waterways. Currently, there are no *Waterwatch* test sites along the Creeklands.

Yarra Valley Water has advised that it no longer has any Emergency Relief Systems (ERS) near the Creeklands. ERS provide for overflow from the sewerage system into the creek in times of emergency. Yarra Valley Water has decommissioned the only two sites (at the bend in Haydn Street and between Alandale and Jeffery Streets) that had potential to impact on the Creeklands. These sites were no longer required as a result of sewer upgrades in the area and the assets for the two ERS were demolished. Data for the ERS recorded since 1992 shows no incidence of any spill from either of the two systems.

Key Issues

- Sustainability of the creek in terms of erosion, deposition, flooding and vegetation
- The appearance of the creek environment with eroded banks and weeds
- Impact of proposed Melbourne Water works on parkland, creek character and vegetation
- Coordination of complementary projects in priority creek works areas with Melbourne Water, such as Council and Advisory Committee revegetation projects.
- Providing physical access to the creek and associated safety issues
- Appearance of the rock lined section below Pakenham Street and the concrete channel near Laurel Grove and the lack of habitat opportunity along these sections of the creek.
- Ongoing maintenance issues such as boundaries of responsibility, resourcing and access for works
- Impact of Council's Stormwater Management Plan
- The role of wetlands in managing stormwater
- Collation of water quality information
- The appearance of hard structures such as culverts, drains into the creek and fencing
- Maintaining views to the creek and definition of creek identity at road crossings.

Opportunities

- Improvement of communication between Melbourne Water, Council and the community.
- Liaising with Melbourne Water to scope, coordinate and implement projects from the 1999 Creek Study and identification of complementary and / or joint projects to improve the riparian environment in accordance with the Melbourne Water Study and the Practical Ecology Report.
- Addressing as a high priority with Melbourne Water the issue of weeds and those sections of the creek that are being undermined by erosion and placing remnant vegetation and assets at risk.
- Clarifying Melbourne Water's future maintenance commitments for the creek.
- Low level planting along the top of the creek bank next to the rock lined section below Pakenham Street and the concrete channel near Laurel Grove. Long term view to undertaking soft engineering / "creekscaping" of these sections including removal of the concrete channel, subject to completion, monitoring and review of works from the Waterway Activity Plan by Melbourne Water.
- Extension of the existing Waratah Crescent wetland.
- Creation of new wetlands / ephemeral marshes below Malcolm Street, Myrtle Grove and Gardenia Streets including opportunities to improve the quality of stormwater feeding the wetland from nearby streets.
- Definition of suitable creek access points and discouraging access at inappropriate locations.
- Implementation of relevant measures from the proposed Stormwater Management Plan, such as litter traps if appropriate.
- Foster *Waterwatch* through the Advisory Committee and / or local schools, to monitor water quality in the creeklands.
- Concealing drains into the creek and softening the appearance of culverts.
- Rehabilitation of Blackburn Creek, in Blacks Walk, which is degraded but was excluded from the Melbourne Water study.
- Minimisation of the structure located at the head of the open section of Blackburn Creek, if possible.

5.6 Park Facilities

5.6.1 Trail Network

The Creeklands has approx 3.8 km of gravel trails that provide access to most areas of the park on either side of the waterway and allow for a combination of circuits and links to adjoining streets. There are bridges mid way along Blacks Walk and at Laurel Grove in Kalang Park. The roads that separate the three parks also provide opportunities to cross the creek.

The trail network is used principally for walking and jogging, although cyclists also use these trails and usually travel at a moderate pace; cyclist speed being limited by trail surface and sightlines. The local community has expressed a strong desire for the trail network to remain unsealed and views the current surface as being complementary to the character of the park, current level of activities and visitor demands. In places, inconsistent surface materials have been used.

Several desire lines exist (i.e. unconstructed tracks worn through regular pedestrian use) and are shown on the Site Analysis Plan. Examples include:

- Creek access:
  - South of the creek in Blacks Walk between the creekside trail and the creek bank.
  - Creekside loop north of the Blacks Walk footbridge and west of the trail.
  - North of the creek in Kalang Park between the creekside trail and the creek bank near the Waratah Crescent wetlands.
  - South of the creek in Furness Park between the trail and the creek bank on the peninsula opposite Furness Street.
  - South of the Furness Street entrance, between the creek and residential properties accessing a ford to cross the creek.
- Mid way along the southern boundary of Blacks Walk linking the pedestrian gate at Laburnum Primary School.
- A parallel route used as an alternative to the terraced trail in Blacks Walk north.
- Between the northern vehicle access gate from Middleborough Road and the existing trail. The pedestrian entrance just to the south does not appear to be well used.
- To a lesser extent, the tracks through the woodland east of Laurel Grove. These tracks offer adventure value and provide access for volunteers involved in managing this bushland plot. Issues to consider with these tracks are pedestrian safety, fire risk and habitat protection.
- A minor track from Doogan Street to the Bowls Club car park.
- Along the northern boundary of Furness Park to Main Street.

Other observations with the existing trail network include:

- The desire of walkers to walk circuits within the park, taking in the range of landscapes.
- Difficult access arrangements across steep land in the northern part of Blacks Walk and from Furness Street.
- The existing entrance to Black's Walk from Fuchsia Street is adequate for local access and has good street connections to Laburnum Village and Station. Parkland north of Fuchsia Street is currently of limited value as it does not connect directly to these nodes.
- The trail alignment works well in most places, providing reasonable visibility, though pedestrians may feel compromised in locations with poor sightlines or where there is limited clearance from dense vegetation. Examples include the Swamp Paperbark thicket north of Malcolm Street, the Laurel Grove connection and the Willow revegetation site in Furness Park.
- Poor trail alignment in the vicinity of the Guide Hall / Blackburn Creek Culvert.
- Poor pedestrian access to the park from Molleton Street.
- In places, the linear nature of the park provides little more than a connection, such as the narrow link in Kalang Park on the north side of the creek from Laurel Grove to Main Street.
- The apparent lack of need for formal connection from Doogan Street.
- Poor trail alignment at the Junction below Waratah Crescent.
- A crossing facility is provided at Middleborough Road (pedestrian lights) and at Blackburn Road (pedestrian refuge). Speed attenuation platforms along Pakenham Street assist crossing from Blacks Walk to Kalang Park, however this is a busy local area, particularly at school drop off and pick up times. The link from Kalang to Furness Park is not pedestrian friendly; there are no traffic control measures on Main Street, which is also a bus route and a busy north / south connection between Canterbury Road / Blackburn South retail area and the Blackburn Station / retail area.
- Short steep sections of path between Furness and Gardenia Streets.

- Path width and quality varies. In most places the trail network is maintained to a high standard though some locations are prone to erosion or are low lying and drain poorly. Examples of poorly drained paths include:
  - ❖ In Blacks Walk, around the Blackburn Creek culvert receiving runoff from adjacent steep terrain and Salisbury Avenue properties and the junction between the playground and the footbridge.
  - ❖ In Kalang Park, north of the creek below steep land at the rear of Myrtle Grove properties, the Swamp Paperbark marsh, east of the Waratah Crescent wetland to Laurel Grove North and sections north of the creek between Laurel Grove North and Main Street.
- Creek erosion threatens to undermine some creekside trails. For example, this was the case below the bridge in Blacks Walk, prior to the recent creek stabilisation works.
- Melbourne Water is concerned about localised flooding of the trail between Pakenham St and Laurel Gve
- The Pakenham Street west car park has poor delineation of path links and may be difficult for pedestrians to negotiate, particularly during peak parking times.
- Connections exist west alongside Sparks Reserve to the Gardiners Creek Trail below Canterbury Road and east via pedestrian / cycle friendly, well treed residential streets (e.g. Jeffery Street or Alandale Road) to Blackburn Lake Sanctuary.

Key Issues

- Management of strong desire lines, especially to the creek.
- Path continuity - Internal path circuits are incomplete in Blacks Walk and Furness Park. Absence of a path in Blacks Walk on the north side of the creek west from Pakenham Street.
- Pedestrian safety – Blacks Walk north, Main Street, Pakenham Street and the Furness and Gardenia Street connections.
- Obstruction in link via Blackburn Creek parkland to Laburnum Village and Station
- Sightlines and points of concealment in terms of pedestrian and cyclist safety. Poor trail alignments. e.g. Swamp Paperbark thickets, Laurel Grove connection, the Willow site in Furness Park.
- Treatment of narrow sections of trail with limited design opportunities
- Path width relative to function for pedestrian and maintenance accessibility
- Maintenance of existing trail surface, particularly in low lying and in steep areas.
- Consistency of path surface materials.
- Impact of creek erosion on existing creekside trails.
- Pedestrian movement through the Pakenham Street west car park.
- Poor signage to connections east and west of the Creeklands and from some local streets.
- Hazards along the trails.
- Pedestrian access to the park from some adjoining streets. e.g. Molleton Street.

Opportunities

- Provide for suitable locations for visitors to reach the creek bank and discourage such access where inappropriate.
- Formalise desire lines that serve a clear functional link such as:
  - ❖ To the primary school along the southern boundary in Blacks Walk
  - ❖ Along the northern boundary of Furness Park between Gardenia and Main Streets.
- Relocate the northern pedestrian entrance from Middleborough Road further north to the existing vehicle access gate.
- Consider returning selected tracks in the Laurel Grove East Woodland to bushland to strengthen habitat values. Improve safety for park visitors by minor selective thinning of middle storey and consider fire management issues.
- Improve the internal circuits in Blacks Walk and Furness Park by completing links near Middleborough Road (e.g. via a creek crossing or other suitable means), west of Pakenham Street (north side of the creek) and forming a connection in from Furness Street possibly incorporating a bridge to the peninsula south of the creek, subject to consultation with Melbourne Water. Opportunities to establish a trail north of the creek from Furness Street to Blackburn Road are physically limited.

- Reviewing trail alignments near the Guide Hall / Blackburn Creek culvert and at the junction below Waratah Crescent to improve connectivity.
- Improve pedestrian safety and comfort in the following locations:
  - ❖ Blacks Walk north by designing a better access that eliminates the existing terracing.
  - ❖ Pakenham Street west car park as part of its redesign.
  - ❖ Furness Street entrance and Gardenia Street connection.
  - ❖ Laurel Grove north / south link, realigning the existing trail south of the bridge and undertaking associated planting. Improve pedestrian access along Molleton St.
  - ❖ Swamp Paperbark thicket, Kalang Park, as part of the wetland / ephemeral marsh rehabilitation. This project would consider the existing alignment of the trail.
  - ❖ Around the Willow / Heath St revegetation site in Furness Park which is well established. e.g. Reopen the existing Heath Street footpath next to the site.
  - ❖ Crossing Main and Pakenham Streets.
  - ❖ Street crossings generally. e.g. Early warning signs to motorists of pedestrians crossing, false bridge effect at the creek, rumble strips or similar.
- Improvement of the linkage value of parkland north of Fuchsia Street (Blacks Walk) if a suitable opportunity for additional property purchase emerges.
- Reviewing the trail alignment between Pakenham St and Laurel Gve to address Melbourne Water's concerns.
- Landscaping to enhance the trail interface with the creek and property boundaries along narrow stretches of parkland.
- Retention of the unsealed trail and maintenance using a consistent surface material.
- Establishing a path hierarchy which identifies main and secondary trails according to their function and defined by path width. Some of the trails which connect from local streets to the main creekside route are relatively narrow and this may be appropriate. e.g. trails to Malcolm Street and Sheehans Road. The Advisory Committee's Strategic Plan for the Creeklands (1997) recommends path widths of 1.4m for major and 1.2m for minor trails. Considerations in reviewing appropriate path width include pedestrian comfort, path function (i.e. major or minor path, volume of use and the like), the path surrounds, disability requirements and any physical constraints. A width of 1.5m (min) to 2.0m (max) for major and 1.2m (min) to 1.4m (max) for minor trails might be appropriate.
- Review of path locations requiring more intensive maintenance, improved drainage or attention to site specific hazards.
- Protection of trail access as part of Melbourne Water creek stabilisation works and identifying improved trail alignments where necessary.
- Improve signage east and west of the Creeklands to Blackburn Lake Sanctuary and the Gardiners Creek Trail, and from local streets north and south of the park. e.g. Fuchsia Street entrance to Blacks Walk and connections to Laburnum Village and train station; Laurel Grove entrances; etc.

5.6.2 Entrances

Most of the entrances to the park are low key and display different styles ranging from indigenous feature planting, a mixture of exotics or open parkland. Access to the park is from:

Blacks Walk:	***Kalang Park:***	***Furness Park:***
* Middleborough Road	* Pakenham Street	* Main Street
* Pakenham Street	* Main Street	* Blackburn Road
Garie Street	* Kalang / Harry Street	* Heath Street
Derby & Fuchsia Streets	* Laurel Grove North	Gardenia Street
Laburnum Primary School	* Laurel Grove South	Furness Street
	Doogan Street (limited)	
	Malcolm Street	
* *denotes major entrances*	Sheehans Road	
	Waratah Crescent	

Observations relating to park entrances include:

- There are clear visual links between the three parks and west to Sparks Reserve but no thematic continuity. Some of the minor entrances to the park have had limited attention to planting and incremental addition of various style fixtures.
- The split post and rail fencing along Middleborough Road deviates, dipping sharply at the creek and is set back from the footpath in places to allow for landscaping.

- The existing ornamental pear trees along the Middleborough Road frontage of Blacks Walk which provide visual continuity for the streetscape but contrast with the character of the park.
- The Harry / Kalang Street frontage is quite open providing views into the park but does not convey a sense of the bushland which exists beyond the sports field. Street tree planting is proposed in Harry and Kalang Streets in the future and although an indigenous species will be considered, final species selection will be subject to local community consultation. The mixture of styles of fencing also detract from this frontage.
- The mature woody weeds that dominate the Main Street entrance of Kalang Park.
- The Furness Park frontage is broad and allows for casual access along its length. The openness of this frontage, especially the corner of Heath and Main Streets, is recognised as a feature of this park. The east end of Heath Street has a weedy thicket of mixed exotics (e.g. Hawthorn) along a short steep gradient from the footpath. This thicket creates a sense of enclosure, but contrasts with the bush character and obscures views into the park.
- The Willow / Heath St revegetation site toward Blackburn Road is now well established.
- The entrance from Furness Street is particularly degraded.
- Safety fencing around creek culverts at the road frontages is of varying style and condition which in places, detracts from the appearance of the park. Similarly, the culverts are heavily engineered structures, some with graffiti and which are visible from within the park.
- Entrances such as Waratah Crescent and Gardenia Street require supplementary planting.

Key Issues

- Poorly presented entrances. Some entrances do not reflect the character of the park.
- Use of indigenous planting, signage and furniture themes at entrances.
- Alignment of the Middleborough Road split post and rail fence.
- Complementary streetscape planting.
- Adequacy of Furness Street entrance.
- Appearance of culverts at road frontages.

Opportunities

- Review the design of each park entrance giving consideration to indigenous feature planting (particularly at the main east / west entrances to each park), safety, accessibility and styles of signs, furniture or other installations that complement the character of the Creeklands, that strengthen continuity, are visually appealing and provide for safe access into the park. Mature trees at entrances (including some exotic species) which add to the landscape value of the Creeklands should generally be retained.
- Realignment of the Middleborough Road split post and rail fence where necessary for visual consistency.
- Indigenous feature planting along the Harry / Kalang Street frontage which retain views across the park and use of indigenous species in future planting of the streetscape. Replacement of fencing with a suitable, consistent style.
- Progressively remove woody weeds from the Main Street entrance to Kalang Park.
- Retention of the openness of south west corner of Furness Park, at Heath and Main Streets; however it may be appropriate to more clearly define an entrance to Furness Park on Main Street to draw pedestrians from Kalang Park and to link with the location of any traffic calming measures. It is acknowledged that casual access will continue to occur at different points along the Heath and Main Street frontages. Selected grass planting in this area to assist tree health.
- Upgrading the Heath St frontage (east end) with more suitable indigenous planting, including softening of the embankment gradient and removal of woody weeds and creepers from trees.
- Removal of the Willows from the revegetation project near Blackburn Road.
- The entrance from Furness Street should remain low key but requires attention to design a simple but safe access within the confined space.
- Review the style of fencing around the culverts to address both safety and aesthetic considerations. e.g. Sections of rustic style split post and rail and or associated planting may be appropriate in places to soften these structures and integrate them into entrance design.

5.6.3 Playgrounds

The Creeklands has one playground in each park:

- Blacks Walk at Garie Street (Upgraded in 2002)
- Kalang Park at Kalang Street (Upgraded in 2000)
- Furness Park at Heath / Main Streets (Upgraded in 1998).

Siting of these playgrounds has involved considerable community consultation.

Key Issues

- Safety issues E.g. Interface of Kalang Park playground with sporting activities; ongoing tree management; playground monitoring

Opportunities

- Consider safety measures at the interface between Kalang oval and the playground.
- Sensitive tree management at playgrounds
- Upgrade play equipment as necessary.

5.6.4 Fencing

Fencing includes:

Permanent park boundary fencing to adjoining private properties. Most adjoining residences have fenced the boundary to the park and various styles of fence are used. In places this is simply a post and wire fence which provides visual continuity. Council requires boundary delineation (usually a fence) to assist with maintenance of the park and to control encroachment by adjoining properties. While Council no longer allows the installation of vehicle access gates, pedestrian gates into the park are usually permitted subject to approval and at the resident's expense. Melbourne Water is responsible for ensuring adequate boundary delineation of its land holdings.

Safety fencing along the creek such as behind the scout hall, around the Blackburn Creek inlet and at culverts. This safety fencing is dilapidated in places.

Temporary protective fencing of bushland and revegetation areas, usually post and wire. These serve an important protective function by preventing access into sensitive, degraded, newly revegetated or regeneration areas. On the down side, sometimes these temporary fences remain for extended periods and become permanent but dilapidated assets and depending on their level of exposure (e.g. adjacent to trails), can become a visual intrusion. Some of these fences will have become overgrown as vegetation reestablishes such that they are now barely visible. Risk management issues such as the positioning temporary fences and access to bushland in times of emergency are also important considerations.

Bollards or railing around car parks and at park entrances. These serve an important function in defining the Creeklands and preventing unauthorised vehicle access, although in places the bollards and fencing are in poor condition and the style is dated.

Key Issues

- Encroachment of parkland by adjoining landholders.
- Intrusive boundary fencing
- Identifying park maintenance boundaries
- Dilapidated safety fencing along the creek and near associated structures
- Redundant temporary fencing.
- Style and condition of entry bollards and fencing
- Alignment of the Middleborough Road split post and rail fence.

Opportunities

- Delineation of property boundaries using a minimalist yet clear measure where this is desired, acknowledging that a visual continuum of space between private and public landholdings can be mutually beneficial.
- Encouraging other styles of fencing that are sensitive to the park where a greater level of privacy and security is desired by residents.
- Review, replacement and installation of safety fencing where required. A style of fencing at culverts that complements entrance treatments may be appropriate. At other locations within the park, an unobtrusive style of safety fencing might be more suitable.
- Rationalisation of temporary fencing with a view to removing unnecessary fencing and replacing those fences which still serve a useful function and have become permanent but are in a dilapidated state.
- Suitable style replacement of bollards that are in poor condition.
- Realignment of the Middleborough Road split post and rail fence where necessary for visual consistency.
- Provision of additional bollards only if needed.
- Replace fencing along the Harry / Kalang Street frontage.

5.6.5 Car Parking & Vehicle Access

Vehicle access to the Creeklands for maintenance purposes is available from most street frontages to the park and no additional points are required.

Carparking for visitors to the park is as follows:

- Adjoining streets
- Blacks Walk (Garie Street – approx 15 - 18 spaces; Pakenham Street west – approx 35 - 40 spaces)
- Kalang Park (Bowls Club – 93 spaces; Harry Street – approx 12 - 15 spaces)

The capacity of these sites adequately cater for the needs of visitors to the Creeklands, given the current level of facilities. There is one disabled car space at the Bowls Club.

The Blackburn Bowls Club car park is partially sealed and appears to function adequately although tree health needs to be monitored. The remaining car parks within the Creeklands are unsealed, with the most frequently and heavily used being the Pakenham Street west car park for visitors to the park generally and by the 2nd Blackburn Scout Group, but mainly as a drop off point for students attending Laburnum Primary School. Surface maintenance, car park layout, pedestrian safety and tree health are highlighted as issues in this car park.

The surface and design of the Garie Street and Kalang pavilion car parks does not seem to be of concern, but their edge is poorly presented.

From time to time, Whitehorse receives requests for temporary vehicle access to adjoining properties for construction purposes. These applications for access are assessed by *ParksWide* and if granted, require that a bond be paid to cover any damage to the park. A number of sites that adjoin the Creeklands have been redeveloped in recent years. Further redevelopment of other sites can be expected.

Key Issues

- Condition and use of the Pakenham Street west car park.
- Presentation of the Garie St and Kalang pavilion car parks.
- Damaged caused by vehicle access.
- Temporary vehicle access through the park to adjoining property e.g. for construction work.
- Provision of parking for the disabled.

Opportunities

- Redesign of the Pakenham Street west car park to protect trees under threat and to improve its efficiency and safety for vehicles and pedestrians. The redesign might include sealing of the car park and edge treatments sensitive to the park setting.
- Upgrade the presentation of the Garie Street and Kalang pavilion car parks in terms of bollard and planting treatment.
- Provide bollards where unauthorised vehicle access is a problem.
- Continue to critically assess and enforce applications for temporary vehicle access to the park.
- Provide additional disabled car parking spaces.

5.6.6 Lighting

The Creeklands do not have significant night time use, nor is this considered desirable from a safety or habitat view point.

For the most part, the Creeklands are not lit. Light spills into each park from the street lighting system along the main frontages. Three (3) solar lights are installed along the trail and bridge connecting the north and south sections of Laurel Grove. In addition to Main Street, the Laurel Grove link provides a direct route through the park from residential areas to the Blackburn and Blackburn South shops and to the Blackburn train station. The solar powered lights are light sensor activated and are designed to remain on for 10 hours. Due to shade from adjacent trees, there is insufficient sunlight for the solar lights to function properly.

Key Issues

- Impaired function of solar lights along the Laurel Grove connection
- Lighting of car parking areas.
- Lighting of entrances from the street network.

Opportunities

- Replace solar lights along the Laurel Grove link with mains power lights or consider installing an offset solar panel.
- Reassessment of car park lighting needs as part of future redesign proposals.
- Consideration of other lighting for the Creeklands (e.g. at street entrances) on an as needed basis.

5.6.7 Seating

Seats are provided along the trails and at playgrounds in each park. Most of these are jarrah and constructed in a robust bench style. Some have backs. The seats are durable and well suited to the character of the park. There are two outdated style seats in Furness Park.

Key Issues

- Outdated and inconsistent style seating in some places.
- Identifying locations with seating deficiencies.

Opportunities

- Removal and replacement if necessary of outdated seating.
- Additional seating of similar style provided on a needs basis.
- Consider installing backed seats at playgrounds.

5.7 Visitor Needs & Activities

In a visitor survey of 169 people at nearby Blackburn Lake Sanctuary (March 1998), walking was the key activity. Other activities included socialising with family and friends, walking the dog, picnicking, supervising children's play, sightseeing, relaxing / reading / sunbathing and enjoying plants and wildlife. Visitor surveys by Parks Victoria show similar trends, although picnicking features more strongly in their surveys with many of Parks Victoria's metropolitan parks having formal picnic facilities. These surveys can be used to extrapolate trends for the Creeklands where observed activities include:

- Walking
- Jogging
- General play & use of playgrounds
- Field naturalist pursuits such as observing fauna and flora & other study
- Kids rambling & exploring
- Active sport at Kalang Oval & Bowls Club
- Walking the dog
- Cycling
- Informal picnicking
- General relaxation such as reading, sitting and enjoying the surrounds.
- Volunteer activities such as working bees
- Guide / Scout activities
- School drop off / pick up point

It is reasonable to assume that visitation to the Creeklands is primarily local, probably even more so than Blackburn Lake Sanctuary which is more widely known and has a higher level of facilities. It is broadly estimated that visitation to the Blackburn Creeklands is likely to be in excess of 100,000 visits per annum. This estimate takes into account the Advisory Committee's knowledge of visitation to the park, the size of the park, the standard of facilities, the catchment population and public awareness of the park.

The nearest public toilets are some distance away at the Blackburn Shopping Centre, Blackburn Lake Sanctuary, Laburnum Station and Sparks Reserve (restricted hours). It is estimated that most visitors to the park would be locals, which this reduces the need for public toilets.

There is high usage of the Creeklands by walkers and for walking the dog. Dogs must be on a leash at all times. This is appropriate from a habitat protection view point and as there are narrow confined spaces along the park. The nearest parks that allow dogs to be off leash, but under effective control, are RHL Sparks Reserve, Morton Park and Masons Road retarding basin.

There is a litter bin in each of the three parks which cater for general litter including dog litter. Visitors are generally expected to take their rubbish with them.

There are no picnic tables in the Creeklands although some informal picnicking occurs. BBQs are not being considered for the Creeklands at this stage.

Laburnum Primary School uses Blacks Walk for school related activities. The use by the School and impact of this on Blacks Walk should be considered in conjunction with other stakeholders.

Key Issues

- Adequacy and range of facilities for visitors and the condition of the park generally in terms of the trails, vegetation and safety.
- The needs of Laburnum Primary School as well as other key stakeholders in the park.
- Enforcement of dogs on leash
- Management of dog litter

Opportunities

- Ensuring that the trail network is of a consistently good standard primarily for walking and jogging and has appropriate, but minimal, advisory signage.
- Consideration of additional facilities on an as needs basis, such as trails, seats, drinking fountains and other furniture.
- Consideration of comfort and safety for visitors such as vegetation management along trails, treatment of isolated or concealed sites and any other risk factors.

- Monitoring use of Blacks Walk by Laburnum Primary School and establishing dialogue with the school on park use patterns and the impact on the park.
- Consideration of installation of more dog litter bins in the park in view of the popularity of the Creeklands for dog walking and the sensitive creek environs.
- Encouragement of use of dog litter bins.
- Monitor the need for public toilets and picnic facilities for consideration in subsequent future reviews of this Master Plan.

5.8 Interpretation & Community Education

There are a number of elements of the natural and cultural environment that could be interpreted. For example, vegetation communities as these become more intact, individual plant specimens, the evolution of the park through its developmental history, fauna and other environmental processes. Refer Section 5.9 Heritage.

Interpretative material within the park includes tree identification plaques and park name signs. A notice board was installed in 1999 in Kalang Park adjacent to Pakenham Street for the Advisory Committee to promote activities such as working bees and meetings, and to display material of interest about the Creeklands. In 2001, a panel for the Whitehorse Heritage Trail titled *"A Breath of Fresh Air"* was sited at Furness Park profiling the Blackburn Open Air School operating at the park between 1915 and 1964 and the style of housing built in nearby streets by Algernon Elmore. Whitehorse installs advisory signs where needed to provide directions or warnings for park users and to reinforce certain rules within the park such as dogs on leash signs.

The former City of Nunawading produced a colour brochure for the park in 1990. A local bird list was compiled by the Advisory Committee in 1986 and has been revised in 2002. The Blackburn Creeklands and Blackburn Lake Sanctuary Advisory Committees produce a joint newsletter that is circulated to the local community. The City of Whitehorse and the Advisory Committee are instrumental in community education at the park and it is important that the good working relationship between the two parties continues.

Issues of community education that are relevant to adjoining residents include messages about their responsibilities as neighbours to the park in relation to vegetation control and proper disposal of rubbish and garden waste. The City also contacts adjoining neighbours on matters such as fire prevention works and other park maintenance and improvement issues of interest. A more proactive role could be taken to advise residents generally and other key stakeholders such as Laburnum Primary School, about littering, environmental weeds and the benefits for the local area of planting indigenous. An example of this might include joint projects between the community, Advisory Committee and Whitehorse on planting of the park interface, and production of brochures for inclusion in New Resident Kits and with rate notices.

Currently there is limited monitoring of fauna (other than birds) and no community involvement in programs such as *Waterwatch*.

Key Issues

- The level of park interpretation to date and identification of other features to interpret
- Future styles of interpretation and signage
- Outdated print material for the park
- Communication with neighbours on park management issues and Committee activities. e.g. Dumping of rubbish and garden waste in the park, fire prevention, working bees, sightings in the park, etc.
- Communication between Council and the Advisory Committee as a key contact with the broader community.
- Involvement of key adjoining stakeholders.
- Community involvement in environmental programs e.g. *Waterwatch* and fauna monitoring.

Opportunities

- Investigate scope for additional park interpretation, both in the park and printed material.
- Maximise use of the existing highly effective and well-managed notice board for a range of local interpretive material reflecting seasonal changes in the park, heritage and current issues.
- Development of a consistent style for interpretation.
- Continue to communicate with adjoining residents on park management issues
- Continue to support the Blackburn Creeklands Advisory Committee in its engagement of the local community.
- Strengthen the relationship between Council and the Advisory Committee

- Investigate scope for joint educational / environmental projects at the park interface with key adjoining stakeholders. e.g. Planting of indigenous upper and ground storey species along the southern boundary of Blacks Walk and Laburnum Primary School.
- Involvement in *Waterwatch* and formal fauna monitoring.
- Consider installing more plant identification plaques if appropriate.

5.9 Heritage

The history of the Blackburn area has been well documented. This report acknowledges the bodies of work that are available and notes the following texts for further reading rather than to detail that history in this Master Plan.

- Brennan, N (1972) *The History of Nunawading,* The Hawthorn Press, Melb, Vic
- Da Costa, R (1978) *Blackburn – A Picturesque History,* Pioneer Design Studio, Lilydale, Vic
- Sydenham, D (1990) *Windows on Nunawading,* Hargreen North Melbourne, Vic

Historical information relating to the Creeklands is also summarised in both the Practical Ecology (2001) and Melbourne Water (Ove Arup, 1999) reports. Another source for local history is the Nunawading and District Historical Society Inc.

Some examples of existing reminders of earlier times at the park include:
- The Pines extending from Laurel Grove south, probably a former windbreak.
- The avenue of *Eucalyptus botryoides* in Kalang Park along a former track which crossed the creek above Kalang Oval and led to a poultry farm on the north side.
- The pear trees / orchard remnants between Sheehans Rd and Malcolm St
- The large eucalypt trees, remnants from the previous vegetation communities that were retained in former agricultural use of the land.
- The English Oak (*Quercus robur*) below the oval in Kalang Park

Excluding a large portion of Furness Park, the former Melbourne and Metropolitan Board of Works was the previous owner and manager of most of the Blackburn Creeklands. Council obtained the western parts of the park in the 1960s followed by the eastern portions in the 1980s.

The names of the each park are included in the Register of Place Names. Blackburn Creeklands and Kalang Park (believed to be aboriginal for "beautiful") were recognised by the Place Names Committee in 1987. M.C. Blacks Walk was registered in 1988 after a former Nunawading City Council Engineer, Malcolm C Black, who served with Council from 1947 – 1968. This is not accurately reflected on the existing sign. Furness Park named after Mr A J Furness after transfer of the land in 1941, had already been placed on the Register of Place Names at an earlier time.

As previously noted, the National Trust of Australia has placed a landscape classification on Furness Park, part of Blackburn Lake and road reserves and front gardens in some surrounding streets. Furness Park has Recorded Status.

Key Issues
- Identifying relevant cultural heritage associations with the Creeklands, such as the developmental history / past use of the land.
- Protection of heritage features regarded as conservation worthy
- Management of natural heritage to maintain the integrity of local landscape classifications
- Other non indigenous vegetation of historic and cultural value
- Suitable interpretation of heritage - refer section 5.8.
- Update of Blacks Walk signage.

Opportunities
- Protection and enhancement of relevant cultural and natural features assessed as being locally significant.
- Focussing interpretation on the developmental history / evolving use of the park and on natural heritage elements such as the indigenous landscape, creek environs and fauna.
- Retention of significant exotic tree specimens where these do not threaten the integrity of nearby bushland. This may involve assessment and staged removal of invasive species (Pine trees, Willows, etc) depending on their location, their aesthetic contribution to the park and whether there are other better located specimens elsewhere in the park.
- Amendment of the existing "Blacks Walk" sign to add "Named after Malcolm C. Black, City Engineer, City of Nunawading 1947 - 1968"

5.10 Property Matters

5.10.1 Unconstructed Roads

A number of unconstructed road reserves within the park were closed in the 1980s and the land incorporated into the park, but some still exist. They include:

- Waratah Crescent (part). A previous attempt to close this road was unsuccessful. Access to this land is adequately controlled by a removable bollard.
- An unconstructed road extending east / west along the north boundary of Furness Park below Gardenia Street and connecting to Main Street. This road is approximately 4.2 metres wide and is used for access to the properties at 63 and 63A Main Street.
- Two other north / south unconstructed roads, leading to Furness Park, running parallel between Blackburn Road, Gardenia Street and Main Street. A substantial length of the road between Main and Gardenia Street properties was closed in February 2000.

On a public roadway (which includes rights of way), a minimum width of 3 metres must be left clear at all times to allow vehicles to pass and any signed restrictions must be observed.

Key Issues

- Impact of adjoining residents with access rights next to the park.
- Concern over tree health and unauthorised vehicle encroachment beyond the road reserve in Furness Park.
- Access rights vs perceived public open space.

Opportunities

- Pursue partial closure of the right of way along the north boundary of Furness Park.
- Delineation of the remainder of the road reserve (e.g. using bollards) in Furness Park to prevent unauthorised vehicle access onto the parkland and to protect existing trees.

5.10.2 Occupants

The following leases exist:

- 2nd Blackburn Scout Group – Blacks Walk adjacent to Pakenham Street. The premises are used on week nights and on weekends for Scout activities and by other local groups. Forty-five (45) local youth belong to the Scouts. The recently renewed lease expires in 2010.
- Girl Guides Association - Blacks Walk near Garie Street. The lease is in the process of being renewed.
- Blackburn Bowls Club – Kalang Park on Pakenham Street. The current lease expires in 2005 and covers the green and Clubhouse.

Council does not see any change in occupancy of these premises in the near future. However, in the case of the Guides and Scouts, new leases are to clarify maintenance responsibilities for the buildings and immediate surrounds, to manage issues such as amenity and safety.

The Kalang Park sporting oval and pavilion are allocated on a seasonal basis. In winter the oval has been used for the junior football clinic, *Auskick*. During summer the ground has been allocated to the Nunawading Churches of Christ Cricket Club. Upgrades to the sporting facilities are undertaken on a needs basis. The existing pavilion is poorly presented.

Key Issues

- Existing condition and level of usage of the Scout and Guide halls
- Appearance of Kalang Oval pavilion.

Opportunities

- Liaising with the Scouts and Guides to produce beneficial outcomes for the park such as the appearance of the halls and their impact on park character. In the long term, encourage the Scouts and Guides to consider rationalising their halls and co-locating activities.
- Continue to allocate sporting uses that are suited to the facilities at Kalang Oval.
- Upgrade the appearance of Kalang Oval pavilion.

5.10.3 Adjoining properties

Apart from Laburnum Primary School, the parks' interface is primarily residential. A number of residents have established gardens that complement the bushland character of the Creeklands. In a few locations, well-intentioned planting of exotic species at the edge of the Creeklands by adjoining residents has created the illusion of private space on public land and can be at odds with the parks' landscape character.

Most properties have boundary fences. Transparent styles of boundary fencing allow for borrowed space for residents as well as visitors to the Creeklands, where there is a visual continuum between private and public land. In this scenario, both park visitors and residents benefit. However, there has been ongoing concern since the mid 1980's about encroachment into parkland by some adjoining residential properties.

In 1999/2000 a City-wide inspection of park boundaries confirmed a number of cases of encroachment by residents adjoining the Creeklands. To address this and to establish clear boundaries for maintenance responsibilities, neighbours that were encroaching onto Whitehorse owned land were advised that boundary delineation is required. Appreciating that part of the appeal of adjoining parkland is the borrowed sense of spaciousness and potential for unobstructed views, and that in many places a standard paling or other solid fence would be visually intrusive, the minimum boundary delineation required by Council is a row of bollards.

In the case of encroachment onto land which is controlled by Melbourne Water, that organisation has been requested to address the issue. Specifically this refers to land in Kalang Park on the north side of the creek adjacent to Main Street and in Furness Park below the Furness Street properties. Significant access and land management improvements could be achieved on these land parcels.

In recent years, the community has expressed concern about redevelopment on adjoining properties in relation to increased development densities, building bulk and style, the consequent loss of vegetation (especially mature trees), drainage impacts and proposed landscaping.

Key Issues

- Encroachment into the Creeklands by adjoining properties.
- Treatment at park interfaces e.g. style of boundary fencing, plant selection and management
- Landscape values held by neighbours
- Management of Melbourne Water land.
- Tree loss and insensitive development of adjoining property.

Opportunities

- Delineation and enforcement of boundaries with neighbours using suitable styles of fencing.
- Advise neighbours on environmental weeds and the benefits of planting indigenous species.
- Continue to pursue Melbourne Water on delineation and management of its land holdings in Kalang and Furness Parks. Discuss the future of these land holdings with Melbourne Water.
- Encouraging development on adjoining sites which is sensitive to the character and integrity of the Creeklands.

6. RECOMMENDATIONS

The recommendations listed in the following pages are divided into those which are common across the Creeklands (*General Matters*) and those which apply to each park (*Blacks Walk*, *Kalang Park* and *Furness Park*).

Most of these recommendations are shown on the Master Plan drawings (sheets 1 – 4).

These recommendations are fluid and can be reviewed over time, taking in changing circumstances at the Creeklands and to maintain the relevance of the Master Plan.

Priorities are shown against each recommendation.

7. IMPLEMENTATION

Implementation of the Master Plan is subject to:

- further consultation with the broader community prior to implementation of those projects which involve significant capital expenditure such as bridges, trails, playgrounds, traffic treatments and the like.

- ongoing consultation with the Blackburn Creeklands Advisory Committee and agencies such as Melbourne Water, including an annual review of action priorities.

- approval of funding in Council's annual budget preparation process.

Some recommendations will fold into day to day maintenance regimes for the park (recurrent budget). Other projects will need to be specified in Council's five year capital budget projections and put forward for annual approval as part of the capital budget preparation process.

Recommendations in the Master Plan should be reviewed periodically to ensure that actions are still appropriate and are in line with budget parameters.

6.1 General Matters (These apply across the Creeklands)

✱ Projects with significant & immediate impact **PRIORITY** H - High M – Medium L – Lower

Terrain & Aspect	Retain and enhance vistas along creekside trails in all parks	H	
	Define creek edge viewing points. Discourage informal viewing points along remaining unconstructed tracks.		M
	Enhance views into the park from all other adjoining streets. Refer 'Entrances'		M
Vegetation *Refer Practical Ecology Pty Ltd report*	Manage weed infestations in conjunction with revegetation / regeneration strategies according to the following principles: ❖ control high priority weeds throughout the park ❖ control most weeds in areas of indigenous vegetation to protect the integrity of those communities ❖ fill gaps created through weed control with indigenous species ❖ ensure ongoing reintroduction of indigenous species into the landscape to generate a long term shift from an exotic to an indigenous seed base.	H	
	Employ different revegetation / regeneration techniques best suited to particular sites and as outlined in the Practical Ecology report. This covers suggested approaches for remnant vegetation communities, revegetation areas, lawn areas, the creekside, open woodlands and trees in open settings.	H	
	Continue to support the valuable 'on-ground' activities of the Advisory Committee in weed control, revegetation and species and general park monitoring	H	
	Regularly monitor tree health and carry out necessary actions, such as arboricultural works and understorey planting / treatments, in consultation with the Advisory Committee.	H	✱
	Protect, enhance and expand the best indigenous vegetation communities with a view to consolidating and linking these communities.	H	
	Use information on past vegetation communities as a template for future plant species selection and mixes. Refine species list.	H	
	Program revegetation projects that anticipate and complement Melbourne Water's creek stabilisation works.	H	✱
	Consider cooperative arrangements for vegetation management at the park interface with adjoining residents and the school.		L
	Consider the safety of park users in vegetation management, park inspections and planning revegetation projects for the park.		M
	Tree regeneration / succession planting for future tree canopy and habitat.	H	
	Implement Fire Management Plan to manage fire hazard	H	
Fauna & Habitat *Refer Practical Ecology Pty Ltd report*	Manage feral and domestic predators of indigenous fauna, including dogs off leash. e.g. Enforcement and fencing of selected habitats as needed.		M
	Manage remaining tree hollows. Investigate suitable nesting boxes. Implement pest control program for tree hollows and nesting boxes.	H	
	Retain and enhance existing habitats – Improve degraded bushland, link habitats, protect trees, enhance wetland areas, improve the range of creek habitats such as fringing and shallow reed areas.	H	
	Explore options to revegetate habitat corridors that link to the Creeklands.		M
	Encourage retention of habitat and suitable indigenous planting on adjoining land and along streets.		M
	Monitoring local fauna through formal databases with the assistance of the Advisory Committee. Include appropriate training.		M
	Monitor and manage the impact of possums on the condition of trees.	H	

Landscape Character	Sensitively manage trees, both healthy trees and those at risk taking in community's appreciation of the Creeklands and safety issues. Undertake preventative works in the immediate vicinity of trees to create a healthy environment for specimens.	H	
	Undertake weed control and revegetation activities in stages.	H	
	Consider using indigenous species in future street tree planting where appropriate.	M	
	Retain mature trees on neighbouring property through appropriate planning controls and enforcement.	H	
	Encourage use of indigenous plants and weed control on adjoining properties. Foster a co-operative approach to vegetation management at the park interface.	H	
Creek Environs & Drainage	Improve communication between Melbourne Water, Council and the community. Liaise with Melbourne Water to scope, coordinate and implement in channel projects from the 1999 Creek Study and identify complementary and / or joint projects to improve the riparian environment in accordance with the Melbourne Water Study and the Practical Ecology Report. *Note: Future projects from the 1999 Creek Study are shown broadly on the Master Plan drawings.*	H	✱
	Address with Melbourne Water the issue of weeds and those sections of the creek where erosion is undermining remnant vegetation and nearby trails. Consider trail realignments where necessary.	H	
	Clarify Melbourne Water's future maintenance commitments for the creek.	H	
	Define suitable creek access points in consultation with the Advisory Committee and discourage access at inappropriate locations.	M	
	Implement relevant measures from the proposed Stormwater Management Plan, such as litter traps if appropriate.	M	
	Conceal drains into the creek in conjunction with Melbourne Water projects and softening the appearance of culverts (refer 'Entrances' below).	L	✱
	Seek involvement in *Waterwatch* in the Creeklands.	L	
Park Facilities ▪ Trail Network	Retain the unsealed trail surface and maintain using a consistent surface material.	H	
	Primary / major paths to be a minimum of 1.5m and a maximum of 2.0 metres wide. Minor paths (generally to nearby minor entrances) to be a minimum of 1.2m and a maximum of 1.4 metres wide.	M	
	Review of path locations that require more intensive maintenance, improved drainage or attention to site specific hazards.	H	
▪ Entrances	Review the design of each park entrance. Incorporate indigenous feature planting (particularly at the main east / west entrances to each park) and styles of signs, furniture or other installations that complement the character of the Creeklands, that strengthen continuity, are visually appealing and provide for safe access into the park. Mature trees at entrances (including some exotic species) that add to the landscape value of the Creeklands should generally be retained. Consider safety and accessibility at entrances.	H	✱
	Review the style of fencing around the culverts to address both safety and aesthetic considerations and to enhance the identity of the creek. e.g. Sections of rustic style split post and rail and or associated planting.	M	✱
▪ Playgrounds	Sensitive tree management at playgrounds.	H	
	Upgrade play equipment as necessary.	L	
▪ Fencing	Delineate property boundaries using a minimalist yet clear measure where this is desired, to acknowledge that a visual continuum of space between private and public landholdings can be mutually beneficial. Encourage other suitable styles of fencing where a greater level of privacy and security is desired by residents.	M	

	Review, replace and install safety fencing where required. e.g. Around culverts – refer 'Entrances' above.	M		
	Rationalise temporary fencing. Remove unnecessary fencing and replace those fences which still serve a useful function and have become permanent but are in a dilapidated state.			L
	Suitable style replacement of bollards that are in poor condition and provide bollards where unauthorised vehicle access is a problem.	M		
▪ Car Parking & Vehicle Access	Continue to critically assess applications and enforce conditions for temporary vehicle access to the park.	M		
	Designate additional disabled car parking.			L
▪ Lighting	Consider lighting for the Creeklands (e.g. at street entrances) on an as needs basis.			L
▪ Seating	Provide seating of consistent style on an as needs basis. Replace outdated seats.			L
	Consider installing backed seats at playgrounds.			L
Visitor Needs & Activities	Provide a consistently good standard of trail with appropriate, but minimal, advisory signage.	H		
	Consider additional facilities as needed, such as trails, seats, drinking fountains and other furniture.			L
	Consider comfort and safety for visitors such as vegetation management along trails, treatment of isolated or concealed sites and any other risk factors.	H		
	Consider installing more dog litter bins and encourage use of these bins by dog walkers.		M	
	Monitor the need for public toilets and picnic facilities for consideration in subsequent future reviews of this Master Plan.			L
Interpretation & Community Education	Investigate scope for joint educational / environmental projects at the park interface with key adjoining stakeholders. e.g. Laburnum Primary School and neighbouring residents.		M	
	Develop a consistent style for interpretation.		M	✱
	Continue to communicate with adjoining residents on park management issues	H		
	Continue to support the Blackburn Creeklands Advisory Committee in its engagement of the local community.	H		
	Strengthen the relationship between Council and the Advisory Committee.	H		
	Investigate scope for additional park interpretation, both in the park and as printed material.			L
	Protect and enhance relevant cultural and natural features assessed as being locally significant.	H		
	Consider installing more plant identification plaques if appropriate.			L
Heritage	Focus interpretation on the developmental history / evolving use of the park and on natural heritage elements such as the indigenous landscape, creek environs and fauna.			L
	Retain significant exotic tree specimens where these do not threaten the integrity of nearby bushland. This may involve assessment and staged removal of invasive species (Pine trees, Willows, etc) depending on their location, their aesthetic contribution to the park and whether there are other, better located, specimens elsewhere in the park.	H		
Property Matters ▪ Unconstructed Roads	No general recommendations.			
▪ Occupants	Delineate and enforce boundaries with neighbours using suitable styles of fencing. Refer ' Fencing'.		M	

▪ Adjoining Properties	Advise neighbours on environmental weeds and the benefits of planting indigenous species.	H
	Encourage development on adjoining sites which is sensitive to the character and integrity of the Creeklands.	M

6.2 Blacks Walk

✱ Projects with significant & immediate impact **PRIORITY** H - High M – Medium L – Lower

Terrain & Aspect	Retain sweeping views across grasslands south of the creek in Blacks Walk and in the vicinity of Garie Street.	H	
	Improve trail to steeper terrain in Blacks Walk below Salisbury Ave properties. Refer 'Trails'.	H	✱
	Light screen planting of hard interfaces. e.g. Along the northern part of the Middleborough Rd frontage to filter views from within the park toward the heavily trafficked road, along the rear of Salisbury Ave properties, around the Scout and Guide Halls and along the Laburnum Primary School boundary.	M	
Vegetation *Refer Practical Ecology Pty Ltd report – Section 3.4 & Map 2A Management Blocks*	Middleborough Road Frontage – Densely plant ground storey to create an attractive buffer but retain views and to prevent erosion and weed invasion.	M	
	Black's Walk Hillside / Northwest Block *(locally significant site)* – Weed control and increase species diversity. Maintain the northern open grassland area and expand the indigenous vegetation toward the creek taking in sites that have been the focus of recent weed control by the Committee. Select weed infested areas in the eastern part to identify a safer path alignment and associated revegetation opportunity.	H	
	Black's Walk Creek Junction – Reintroduce indigenous ground storey plants. Further revegetation of creek edge to bolster recent Melbourne Water project. Remove introduced natives over time.	H	
	Guide Hall & Blacks Walk Playground – Establish additional scattered clumps of indigenous vegetation generally and around existing large trees. Possible involvement of Guides. Weed control and revegetation along the creekside.	M	
	Pakenham Street West / North Bank –Widen and revegetate creek edge. Retain remainder of mown area.	M	
	Scout Hall – Protect and manage large trees in the car park e.g. plant at base and minimise compaction. Redesign car park to alleviate dust and provide trees with an adequate buffer.	H	
	South Creek Bank (Pakenham Street West & Middleborough Road East) – Widen and revegetate creek edge, increasing its indigenous quality. Control woody weeds.	H	
	Blacks Walk South Block – Retain central open area. Monitor and control weeds in existing unmown areas. Careful selection of any new areas to be left unmown, targeting the drip zone of large trees around the fringe. Consider a managed woodland along the school interface, with access breaks, to create an attractive buffer.	M	
Fauna & Habitat	*Refer Practical Ecology Pty Ltd report*		
Landscape Character	Progressively remove invasive exotic trees along and north of the creek that have little or no historic / cultural associations such as Willows, Pines, Oaks and Hawthorn	M	✱
	Identify and enhance landscape elements that characterise Blacks Walk such as the grasslands and creekside vegetation.	M	
Creek Environs & Drainage	Low level planting along the top of the creek bank next to the rock lined section below Pakenham Street. Long term view to undertaking soft engineering / "creekscaping" of this section.	M	L✱
	Rehabilitation of Blackburn Creek, which is degraded but was excluded from the Melbourne Water study.	H	✱
	If possible, minimise the structure located at the head of the open section of Blackburn Creek.	M	

Park Facilities ▪ Trail Network	Rationalise and formalise desire lines to the primary school gate along the southern boundary that serve a clear functional link.	L
	Complete the internal circuit in Blacks Walk by providing a link at Middleborough Road (e.g. via a creek crossing or other suitable means) and west of Pakenham Street (north side of the creek).	M ✱
	Relocate the northern pedestrian entrance from Middleborough Road further north to the existing vehicle access gate.	M
	Improve pedestrian safety and comfort in the following locations: ▪ Blacks Walk north by designing a better access that eliminates the existing terracing. ▪ Pakenham Street west car park as part of its redesign.	H ✱ M
	Improve of the linkage value of parkland north of Fuchsia Street (Blacks Walk) if a suitable opportunity for additional property purchase emerges.	L
	Review connectivity of trails near the Guide Hall / Blackburn Creek culvert. Include associated landscaping in redesign.	L✱
	Improve path drainage, around the Blackburn Creek culvert and at the junction between the playground and the footbridge.	H
	Provide early warning signs to motorists of pedestrians crossing Pakenham Street. Improve crossing at Pakenham Street	M
	Improve signage west to the Gardiners Creek Trail and from local streets where needed.	H
▪ Entrances	Realign the Middleborough Road split post and rail fence. Suitable planting to soften the fence and filter Middleborough Road.	M
▪ Playgrounds	No specific recommendations.	
▪ Fencing	Realign the Middleborough Road split post and rail fence where necessary. Refer also 'Entrances'.	M
▪ Car Parking & Vehicle Access	Redesign the Pakenham Street west car park (consider safety, aesthetics, efficiency and tree protection) and upgrade the presentation (bollard and planting treatment) of the Garie Street car park.	H ✱
▪ Lighting	Assess lighting as part of Pakenham Street redesign process.	L
▪ Seating	No specific recommendations.	
Visitor Needs & Activities	Monitor use of Blacks Walk by Laburnum Primary School and establish dialogue with the school on park use patterns and the impact on the park.	L
Interpretation & Community Education	No specific recommendations.	
Heritage	Amend the existing "Blacks Walk" sign to add "Named after Malcolm C. Black, City Engineer, City of Nunawading 1947 - 1968"	L
Property Matters ▪ Unconstructed Roads	No specific recommendations.	
▪ Occupants	Liaise with the Scouts and Guides to produce beneficial outcomes for the park. Encourage the Scouts and Guides to consider rationalising their halls and co-locating activities.	L✱
▪ Adjoining Properties	Encourage complementary treatment of the interface with Laburnum Primary School.	M ✱

6.3 Kalang Park

✱ Projects with significant & immediate impact **PRIORITY** H - High M – Medium L – Lower

Terrain & Aspect	Retain views across Kalang Oval through a light cover of canopy and understorey planting along the creekside trail.	M	
	Lightly screen plant hard interfaces. e.g. Harry / Kalang St edge and fence lines where possible such as below Boongarry Ave.	M	
Vegetation *Refer Practical Ecology Pty Ltd report – Section 3.4 & Map 2B & 2C Management Blocks*	Pakenham St East / North Creek Bank & Waratah Crescent West *(locally significant sites)* – Create intermittent wetland on the floodplain toward Pakenham St. Continue indigenous planting of steep terrain and extend these at both ends. Intensive weed control of Committee revegetation site between the trail and the creek toward Waratah Crescent to ensure establishment of the indigenous species. Maintain open walking corridor. Consider these blocks for environmental interpretation.	H	✱
	Waratah Crescent Wetland *(locally significant site)* – Monitor birds and water quality. Increase diversity of aquatic planting. Control Cumbungi and gradually replace with more desirable species. Deepen the wetland in places. Establish a shrub thicket at the fringe. Investigate the feasibility of expanding the wetland eastward to low lying areas.	M	
	Malcolm St / Sheehans Rd Creek Bank & Block – Weed control along the creek. Redesign the Swamp Paperbark wetland area taking into account existing vegetation, trail alignment, future Melbourne Water works and stormwater supply. Redesign the landscape layout between the wetland and residential properties - Reduce mowing frequency to create managed open grassy woodland areas, spot spray for weeds and replace indigenous shrub layer. Consider safety and fire hazard issues.	H	✱
	Pakenham Street East / South Creek Bank –Plant stands of indigenous vegetation between the path and Kalang Oval. (Refer 'Terrain & Aspect' above – planting style that allows filtered views is suggested.)	M	
	Kalang Oval –Protect fringe remnant trees with clumps of indigenous shrubs and ground storey.	M	
	Main St West / North Creek Bank – Formalise the park entrance by replacing the ornamental environmental weeds at the east end with indigenous species. Liaise with neighbours on preservation of Tree Violets on adjoining private land. Limited opportunities for revegetation along the narrow creek bank.	H	✱
	Laurel Grove East / North Creek Bank – Indigenous planting of the narrow creek bank. Establish avenue of trees where space permits.	M	
	Main St West / South Creek Bank – Remove invasive weeds such as Madeira Vine and Pines in stages. Replace with indigenous vegetation.	H	✱
	Laurel Grove East / South Creek Bank *(locally significant site)* – Weed control (including Pines and exotic grasses) and revegetation including eucalypts for future canopy. Expand revegetation to adjacent management blocks. Maintain current fire breaks. Implement controlled burn with follow up weed control. Reduce the number of mown tracks. Maintain clear walking corridor. Revegetation along creek bank.	H	
Fauna & Habitat	*Refer Practical Ecology Pty Ltd report*		
Landscape Character	Progressively remove invasive exotic trees that have little or no historic / cultural associations such as the remaining Pines between Laurel Gve and Main St. Retain the historic Oak in Kalang Park. Mature exotic trees at entrances can be kept as part of entrance treatments	M	✱
	Identify and enhance landscape elements that characterise the park. e.g. the lineal unfolding bush landscape in Kalang Park.	M	
Creek Environs & Drainage	Low level planting along the top of the creek bank next to the rock lined section at Pakenham Street and the concrete channel near Laurel Grove. Long term view to undertaking soft engineering / "creekscaping" of these sections.	M	L✱

	Investigate the feasibility of expanding the existing Waratah Crescent wetland.	M	✱
	Create new wetlands / ephemeral marshes below Malcolm Street and Myrtle Grove incorporating stormwater from local streets if possible.	H	✱
Park Facilities ▪ Trail Network	Improve pedestrian safety and comfort in the following locations: ▪ Laurel Grove north / south link by realigning the existing trail and associated planting. ▪ Improve pedestrian access to the park along Molleton St (note this is a private road). ▪ Swamp Paperbark thicket, Kalang Park, as part of the wetland rehabilitation. This project would consider the alignment and drainage of the existing of the trail.	M L H	✱ ✱
	Return selected tracks in the Laurel Grove East woodland to bushland to strengthen habitat values. Improve park visitor safety by minor selective thinning of middle storey.	M	
	Provide landscaping to enhance the trail interface with the creek and property boundaries along narrow stretches of parkland.	H	
	Improve signage to the park from local streets where needed. e.g. Laurel Grove South entrance.	M	
	Rationalise tracks at the junction below Waratah Crescent.	M	
	Review trail alignment between Pakenham St and Laurel Gve to address Melbourne Water's concerns about localised flooding	L	
	Improve path drainage below steep land at the rear of Myrtle Grove properties, east of the Waratah Crescent wetland to Laurel Grove North and sections north of the creek between Laurel Grove North and Main Street.	H	
▪ Entrances	Indigenous feature planting along the Harry / Kalang Street frontage which retain views across the park and use of indigenous species in future planting of the streetscape.	M	
	Progressively remove woody weeds from the Main Street entrance to Kalang Park and replace with indigenous species	M	✱
▪ Playgrounds	Consider safety measures at the interface between Kalang oval and the playground.	M	
▪ Fencing	Replace the Harry / Kalang Street frontage with a suitable, consistent style fence.	M	
▪ Car Parking & Vehicle Access	Upgrade the presentation of the Kalang pavilion car park (bollard and planting treatment.)	M	✱
▪ Lighting	Replace solar lights along the Laurel Grove link with mains power lights or consider installing an offset solar panel.	H	
▪ Seating	No specific recommendations.		
Visitor Needs & Activities	No specific recommendations.		
Interpretation & Community Education	Maximise use of the existing highly effective and well-managed notice board for a range of local interpretive material reflecting seasonal changes in the park, heritage and current issues.	M	
Heritage	No specific recommendations.		
Property Matters ▪ Unconstructed Roads	No specific recommendations.		
▪ Occupants	Upgrade the appearance of the Kalang Pavilion. Continue to allocate sporting uses that are suited to the size of Kalang Oval.	M	✱
▪ Adjoining Properties	Continue to pursue Melbourne Water on delineation and management of its land holdings in Kalang Park.	H	✱

6.4 Furness Park

✱ Projects with significant & immediate impact **PRIORITY** H - High M – Medium L – Lower

Terrain & Aspect	Retain views across grasslands either side of the creek in Furness Park	M	
	Lightly screen plant hard interfaces. e.g. The northern boundary below Gardenia Street properties and along the eastern part of the Heath Street frontage.	M	
Vegetation *Refer Practical Ecology Pty Ltd report – Section 3.4 & Map 2D Management Blocks*	North Bank – Revegetate gaps in the creekside corridor. Create a wetland along the gully below Gardenia Street to manage runoff. Revegetation associated with Furness Street path redesign.	H	
	Southeast & South Banks – Revegetate gaps in the creekside corridor. Replace woody weeds along the Heath Street frontage with suitable species. Remove exotic creepers from remnant trees near Heath Street and provide islands of indigenous understorey to promote tree health.	H	
	Playground Area – Weed control and revegetation beneath remnant areas which are unmown and dominated by Kikuyu. Selectively burn and spot spray these areas to encourage an indigenous ground storey. Restrict mowing of the Main Street corner and plant indigenous grassy understorey to promote tree health.	H	
	Landlocked Areas (north bank below Furness St properties) – Gradually replace environmental weeds with indigenous vegetation. Define public land	M	
Fauna & Habitat	*Refer Practical Ecology Pty Ltd report*		
Landscape Character	Progressively remove invasive exotic trees that have little or no historic / cultural associations such as the Heath St Hawthorn thicket and Willows. Soften Heath St embankment gradient and plant with suitable indigenous species.	H	✱
	Identify and enhance landscape elements that characterise the park such as protection of the mature eucalypts in Furness Park and recognition of the park's Recorded Landscape Status.	H	
Creek Environs & Drainage	Create new wetlands (overland flow terraces) below Gardenia Street incorporating stormwater from local streets if possible. Review street drainage as part of the design.	H	✱
Park Facilities ▪ Trail Network	Complete the internal circuit in Furness Park by providing a bridge in from Furness Street to connect with the peninsula, subject to approval from Melbourne Water.	H	✱
	Improve pedestrian safety and comfort in the following locations: ▪ Crossing Main Street. ▪ Furness Street entrance ▪ Gardenia Street connection ▪ Around the Willow revegetation site on Heath Street which is well established.	 H H M H	 ✱ ✱
	Provide early warning signs to motorists of pedestrians crossing Main Street and Blackburn Road.	H	
	Improve signage to Blackburn Lake Sanctuary and from local streets where needed.	H	

▪ Entrances	Retain the openness of the south west corner of Furness Park, at Heath and Main Streets. It may be appropriate to more clearly define an entrance to Furness Park on Main Street to draw pedestrians from Kalang Park and to link with the location of any traffic calming measures. Re-establish ground storey as a feature of the south west corner. Selected grass planting in this area to assist tree health.	M
	Design a simple but safe access from Furness Street.	H ✱
	Remove the Willows and associated fencing near Blackburn Road.	H
▪ Playgrounds	No specific recommendations.	
▪ Fencing	No specific recommendations.	
▪ Car Parking & Vehicle Access	No specific recommendations.	
▪ Lighting	No specific recommendations.	
▪ Seating	No specific recommendations.	
Visitor Needs & Activities	No specific recommendations.	
Interpretation & Community Education	No specific recommendations.	
Heritage	No specific recommendations.	
Property Matters ▪ Unconstructed Roads	Partly close the right of way along the north boundary. Bollard the remaining road reserve to prevent unauthorised vehicle access onto the parkland and to protect existing trees.	H
▪ Occupants	No specific recommendations.	
▪ Adjoining Properties	Continue to pursue Melbourne Water on delineation and management of its land holding in Furness Park.	M

REFERENCES

Blackburn Creeklands Advisory Committee (1997) *Blackburn Creeklands Strategic Plan 1997 – 2002*

Brennan, N (1972) *The History of Nunawading,* The Hawthorn Press, Melb, Vic

City of Whitehorse (1998) *Whitehorse Conservation Framework*

City of Whitehorse (1999) *Whitehorse Municipal Strategic Statement*

City of Whitehorse (2000) *Vegetation Management in Parks Policy* and *Report*

City of Whitehorse (2001) *Corporate Plan 2002 / 2004*

Da Costa, R (1978) *Blackburn – A Picturesque History,* Pioneer Design Studio, Lilydale, Vic

EDAW (Aust) Pty Ltd (1996) *Open Space Strategy - Stage 1 Inventory*

Council records - File information and Council Meeting Minutes

Mark McWha Landscape Architects (1995) *Whitehorse Residential Street Tree Strategy*

Ove Arup & Partners Consulting Engineers (1999) *Blackburn Creek Study: Final Report*. Unpublished report prepared for Melbourne Water

Parklinks Pty Ltd (1997) *Whitehorse Bicycle Strategy and Works Program*

Parks Victoria (revised 1998) *A Guide to Priorities for Melbourne's Open Space Network - Yarra Region*

Practical Ecology Pty Ltd (2001) *Assessment of Flora, Fauna and Habitat at the Blackburn Creeklands and General Recommendations for Conservation Management*. Unpublished report prepared for the City of Whitehorse

Ray Hutchison and Associates (1998) *Playground Strategy*

Sydenham, D (1990) *Windows on Nunawading,* Hargreen North Melbourne, Vic

Whitehorse Planning Scheme

Yarracare (1997) *Yarra Catchment Action Plan*

APPENDIX A

Assessment of Flora, Fauna and Habitat at the Blackburn Creeklands and General Recommendations for Conservation Management

Practical Ecology Pty Ltd

November 2001